

CALLBACK

ASRS

From NASA's Aviation Safety Reporting System

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Uncanny

Tales from ASRS

At ASRS, just when we think we've seen it all, strange and unusual reports arrive to tantalize our analyst staff. Not routine tales of suspense – a flapless takeoff, icing in Very Moist Conditions, or smoke in the hold. Uncanny experiences from the outer limits of aviation unfold – and the safety lessons learned as well.

Brave readers, gather round, as these travelers relate their spooky tales. And if these stories seem improbable and odd, remember this:

"Truth is stranger than fiction."

Attack of the Night Invader

During a busy nighttime departure, the First Officer was flying the aircraft while the Captain worked weather radar and coordinated weather deviation vectors with ATC. The fast-climbing B747 had been cleared to climb and maintain 5,000 feet. The Captain had just given the "4,000 to 5,000" call, when a bizarre distraction occurred:

■ ...Just then we received a call from ATC. Just as the controller began speaking, a very large moth (approximately 2 inches in diameter) flew out from behind the instrument panel directly in my face. The whole crew was suddenly distracted by this, as I dropped the hand microphone in my reflex reaction to this moth's attack on my face. I believe he may have been attracted to the map light directly above my head. I leaned forward to retrieve the hand microphone from the floor, and just then heard the altitude warning system activate. I immediately looked up at the altitude and saw 5,340 feet. The First Officer was already pushing forward aggressively on the yoke, and I assisted. We immediately restored the aircraft to 5,000 feet...

[This incident] was...a stark reminder to all that the flying pilot needs to focus on flying the plane, even under the most bizarre of all possible distractions...The sudden appearance of an invading moth flying into the Captain's face was not briefed, and its timing was at a point where even the slightest pause in attention to primary duties can jeopardize the safety of our flight...

St. Elmo's Fire – And Aftermath

St. Elmo's Fire is an eerie form of atmospheric electricity that can appear in stormy weather around church spires, ship's masts, airplane wings, and other conductors. For a B757 flight crew, the appearance of St. Elmo's Fire was a prelude to gremlins in the electrical system. More from the Captain's report:

■ During climbout... we were in heavy rain and massive St. Elmo's Fire, lots of lightning and moderate chop/turbulence. We were climbing through FL270 and doing 270 knots with the autopilot on. After several minutes of this there was a strong burning smell in the cockpit. I had experienced this before in the 757 during St. Elmo's Fire, but the copilot hadn't.

The smell got stronger and then the Captain's airspeed indicator indicated about 120 knots. Then my altimeter failed.... We then got a 'rudder ratio' and 'mach speed trim' warning on the EICAS [Engine Instrument and Crew Alerting System]...More electrical instruments seemed to be failing or giving false information on my side and the problem was spreading to the co-pilot's side. There were more EICAS warnings than we could read. Then the autopilot did a pitch up of over 10 degrees....I disconnected the autopilot. We declared an emergency to return to ZZZ. The problem [was], the radios seemed to have failed. On standby instruments, I slowly turned back to ZZZ...

After repeated calls, the radio started to work...An emergency was officially declared...During this time, instruments were starting to come back, one by one. The burning smell was also going away...All warnings started to go away and everything worked normally...We landed overweight...The landing was extremely smooth on a very wet runway...

It is my understanding (unconfirmed) that maintenance found nothing wrong with the aircraft. The only explanation that either I or the copilot can come up with is that there was a massive static buildup/discharge or lightning strike that temporarily knocked out most of our electrical system. There was no loud bang or sound normally associated with lightning strike or static discharge...

The Flying Visor

The moral of this startling tale is to make sure visors are snapped onto their rails, in case the aircraft hits turbulence.

■ ...While flying into sunset, visors were put up to block setting sun. Hit turbulence, and a visor fell onto the control panel aft and to the right of the throttle quadrant. The visor fell with force across the aft cargo fire bottle arming switch, and then hit the discharge switch (guarded). The force of the impact distorted the plastic guard sufficiently to discharge the aft cargo fire bottle! The arming switch was then un-armed. The halon retardant must have vented overboard, as there was no residue in cargo or luggage, and the two animals being transported appeared fine. Company maintenance and dispatcher were notified.

ASRS Alerts Issued in August 2006	
Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	3
Airport facility or procedure	2
ATC procedure or equipment	5
Maintenance procedure	3
TOTAL	13

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August 2006 Report Intake	
Air Carrier/Air Taxi Pilots	2113
General Aviation Pilots	878
Controllers	126
Cabin/Mechanics/Military/Other	420
TOTAL	3537

Dreaded Dilemmas

Dread is a feeling of trepidation and alarm that knots the stomach and stretches its icy fingers into every pore – an emotion well known to some ASRS reporters, judging from their reports. And what dreaded dilemmas do our reporters describe? Here are some examples drawn from the ASRS database.

“The Dreaded Scraping Sound”

For a helicopter pilot transitioning to fixed wing aircraft, a ‘grease-on’ landing brought a dreaded realization in its wake:

■ Previous flight experience [was] all on fixed gear [aircraft]. This was a new aircraft/new field situation... I slowed the aircraft to 120 mph about 12 miles out and in my mind put the gear down. Descended to circuit height. Joined 45 degrees to downwind. Did GUMP checks (obviously poorly). Convinced gear was down, but did not check properly. Turned final...failed to do final gear check. Didn't hear gear horn...Was wearing helicopter headphones. Did a “grease-on” landing with slight stall warning. Totally shocked to hear the dreaded scraping sound!!

No doubt [that this was] pilot error...Must do “touch it” GUMP checks. Must get into a “grooved” procedure. Thankfully I was the only person on board and [was] not hurt...

“The Split Second Decision We All Dread”

The Captain of a Regional Jet faced a split-second decision in which training and instinct played an equal part:

■ Takeoff on Runway 6 was normal until about 100 knots when a momentary pull was felt accompanied by a barely audible “pop.” I aborted the takeoff at about 110 knots. Suspecting a tire problem, I maximized reverse thrust and used moderate braking. The First Officer called the Tower with the abort...I elected to pull off the runway and park away from the gate to allow the brakes to cool. CFR (Crash Fire Rescue) was dispatched automatically and after being consulted, was dismissed...Seeing that the right inboard main tire was flat, I called Operations for assistance... Maintenance...noted that the right main inboard hydraulic line attach fitting was found loose and that this was known to lock up the brake...

Company policy is to continue the takeoff when above 100 knots unless the airplane is deemed unsafe to fly. My decision to abort was based on the possibility of not reaching the V speeds (V1 equals 129 knots), having about 7,000 feet [of runway] remaining to effect a safe abort (10,000 foot runway), and a relatively light airplane (48,000 lbs.).

The First Officer's report of this incident added:

■ I think the Captain did an outstanding job with minimum time to ascertain whether the aircraft was airworthy or not. This situation is the split second decision we all dread.

“The Dreaded Call”

An American Yankee pilot inbound for landing gave the Tower an incorrect position report. But that was not all:

■ ...Also, unknown to me, my Mode C reported 100 feet when I was at 2,000 feet. Based on this info, the controller thought I was a police helicopter that he had on his radar screen. He gave me vectors that were meant to take me to Runway 25L, but since I was not where he thought I was, his vectors lined me up for Runway 34L. When I was on short final I...offered to go around. Tower concurred and gave me...[turns] which put me on downwind for Runway 25L. At this point, I became reoriented...and landed without further difficulty.

Then came the dreaded call: ‘Call the Tower after you shut down.’ I called the Tower and had a talk with the Tower supervisor...He was very nice, and told me to be careful. Contributing factors: 1) situational awareness (reported wrong position); 2) transponder gave wrong altitude, confusing the controller and adding to his stress level.



Meet the Staff

Gary Brauch

Gary Brauch, a new member of the ASRS analyst staff, insists that he doesn't have a nickname (“no tactical callsigns”). Otherwise, he fits in perfectly with ASRS's lively analyst group. Gary is being trained to perform



final analysis on a variety of ASRS reports, especially reports involving widebody international operations, where he has depth and diversity of experience.

Before joining the ASRS staff, Gary spent almost 39 years with United Airlines flying a wide variety of equipment: the DC-6, Convair, DC-8, DC-10, B727, B737,

B747 (3 models), B757, B767, and B777. During this time he was also a member of ALPA's Professional Standards Committee.

Gary is definitely a man on the fast track. Once a month he races his silver Ferrari at race tracks in California, including Sears Point and Laguna Seca. We're still trying to catch up with him long enough to say: “Welcome aboard, Gary!”



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