

CALLBACK

From NASA's Aviation Safety Reporting System



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WINTER WEATHER OPERATIONS



As we move into the winter months, the challenges associated with inclement weather affect everyone in the aviation community. While ASRS incident reports can offer insights into a variety of weather related hazards, this month's *CALLBACK* focuses on events that occurred on icy runways or taxiways. These reports serve as a reminder to be prepared for all types of winter weather challenges, not only on the ground, but also in the air.

“The Aircraft Wasn't Responding”

Ice hidden under snow can be an unexpected and dangerous encounter on the takeoff roll. This LJ45 Captain described a scary incident that confirmed his resolve to use plowed runways and get braking action reports.

■ *We announced on CTAF that we were departing.... I applied takeoff power to both engines while the pilot not flying called out airspeeds and engine parameters. At approximately 1,000 feet down the runway we hit a patch of ice under the snow. I felt the right main gear begin to skid and the aircraft veer to the right. I applied left rudder pressure to correct the drift, but we continued to skid. The pilot not flying called the drift and yelled, “Go left, go left!” but the aircraft wasn't responding to my inputs. We exited the runway surface and continued approximately 200 feet before coming to a stop in the snow and mud.*

We shut down both engines and asked the passengers if they were OK, to which they replied that nobody was injured. We told them to sit tight while we examined the aircraft for damage and possible fire hazards. After determining that there was no risk of fire we deplaned the passengers.

I think that pilots shouldn't take off in similar conditions without first having the runway plowed and a braking action report issued.

Sideways Slide

Relying on runway braking reports that turned out to be almost forty minutes old, a P180 Flight Crew landed in conditions that had gone from bad to worse or, literally, from FAIR to NIL.

■ *Before departing, several phone calls were made to [the destination field] and we were assured that the braking action*

was FAIR or better and the runway had been plowed. As we started the ILS, we were again told the braking action was reported FAIR. Upon landing the aircraft started sliding sideways on ice. There was no braking action and no steering due to the ice. We were able to keep the aircraft on the runway but struck a runway light in the process. After regaining control of the aircraft and coming to a stop, the parking brake was set and the brakes held. The aircraft was able to be moved even with the brakes set and locked. We informed the tower that braking action was NIL and asked the time of the last report. The last report had been taken 37 minutes prior.

Scary Ride

After landing without any problems, a B737 Flight Crew experienced a loss of steering control when they turned onto an “untreated” taxiway. For anyone who has experienced loss of control on ice, the cockpit dialog in this report will bring back memories of the anxious feeling that accompanies such events.

■ *Prior to our initial descent, we obtained the digital ATIS as well as a field conditions report. The Captain and I made note of the “Wet GOOD” report for the runways that were in use at our planned time of landing, as well as the “Wet FAIR” report on the ramp area. We also noted the visibility and ceiling reports on the ATIS.... A normal stabilized ILS and landing was performed....*

The touchdown was well within the touchdown zone. Normal braking was encountered during the entire landing and rollout. The center section of the runway was fairly free of contamination considering the amount of snowfall and accumulation. The rate of deceleration was even increased as a result of the 20-24 knot winds that were blowing almost straight down the runway at the time of landing. At around 60 knots, I transferred control of the aircraft to the Captain. We were instructed to exit the runway at Taxiway [X] and contact Ground. About 200-300 yards prior to the turn, the Captain stated he was going to do a brake check. The braking at this point seemed good and the aircraft appeared to respond normally. As we approached the taxiway, it was apparent that the runway conditions beyond Taxiway [X] seemed to be much worse. It also appeared that there had been no attempt to treat and/or plow the taxiway intersection.

The Captain slowed the aircraft to a slow walking pace as we approached the turn. The first 30 degrees or so of the turn was normal, but at about the 35-40 degree point of the turn, the aircraft seemed to start sliding. At this point, I started to confirm with the Captain that he was turning or stopping. I said multiple times, "Turn, turn, turn!" to which he responded, "I am. It's sliding!" At this point, I actually pressed on the already full right rudder and brakes, but the aircraft didn't respond at all. As we approached the edge of the taxiway, the nose wheel finally caught traction and the aircraft slowly turned back to the right and back onto the center of the taxiway. As we performed our after landing flows, I notified Ground that the braking action on Taxiway [X] was NIL.

"We Both Tried Braking with No Response"

An A300 Flight Crew learned that, in the absence of a standardized braking action report for the taxiways, "slippery" can equate to "Braking Action NIL."

■ Weather was reported as light snow.... On approach, I requested updated braking action reports and Tower reported fair with taxiways reported as slippery by aircraft that landed in front of us.

We selected MED Autobrakes and the aircraft slowed with no problems. We were not able to make the intended taxiway and continued to taxi to the end of the runway for turnoff. Tower cleared us to turn left on one taxiway, left on another and to contact Ground and advise when clear.

Upon turning onto the taxiway the aircraft started to skid to the right. The Captain was able to steer the aircraft back toward centerline but then the aircraft started to skid to the left. The Captain did everything to try and regain control, but was unable. We both tried braking with no response. The aircraft came to a stop on the left side of the taxiway. It appeared we may have been over the taxi lights although we could not confirm that due to the snow cover.

We made no attempts to move the aircraft at this point. I reported our position and intentions to the Tower and then contacted Company Maintenance for a tow....

The airport was reporting runway braking action, but it would have helped to have taxiway reports that used a recognized scale of braking action.

Keep Off the Grass

In an ASRS report on a B717's taxiway excursion, a Ground Controller reinforces the idea that braking action reports

should also be given for taxiways that have been affected by snow and ice.

■ A B717 was issued detailed taxi instructions to Runway 26L. The pilot checked on with current ATIS. Weather (snow, low visibility) at the time of the incident was such that the aircraft was barely visible from the tower. The pilot called and asked if he could make a right 270-degree turn, apparently to rejoin his assigned taxi route. I approved his unusual request as it appeared that he may have missed his turn. I also offered alternative taxi instructions to eliminate the need for a 270-degree turn at the intersection. The pilot reported that braking action on the taxiway was poor. Later he reported something to the effect that he was unable to comply with my alternate instructions and then reported that he was in the grass.

There had been no previous braking action reports regarding taxiways. I immediately informed the Supervisor of the situation. Normally the airport authority is meticulous about reporting field conditions, but it seemed like they may have been behind the power curve today. A braking action report regarding taxiways would have been beneficial to alert users to the conditions experienced.

A Hit and a Miss on the Ice Runway

Taking off from a runway made of ice pretty much ensures an encounter with slippery conditions. As this C172 Pilot learned, directional control on ice can be a challenge under the best of circumstances.

■ We were taking off on the ice runway. The wind was down the runway at approximately 5-7 knots. The ice was clear with no snow. As I accelerated and pushed the throttle to the firewall, I began to feel a loss of directional control. The plane began to yaw left and started skidding off the runway surface. After realizing I did not have the airspeed or directional control to rotate and lift the plane off the ice safely, I pulled the power and tapped the right brake. The tail of the aircraft then once again began to align with the nose. We rolled/skidded to a stop on the west side of the runway, but not until we had hit a stick that was standing up in the ice with our wing strut. This may have been a stick left by an ice fisherman. I'm not really sure. It was not a runway marker. The runway was marked by yellow cones. While there was no property damage or injury, there was a pickup truck on the ice. This vehicle was close to the runway and, for a short time, was in the path of our skidding plane. Fortunately some directional control was re-established before any contact was made.

ASRS Alerts Issued in November 2013	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	6
Airport Facility or Procedure	3
ATC Equipment or Procedure	1
Company Policy	1
Hazard to Flight	1
TOTAL	12

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November 2013 Report Intake	
Air Carrier/Air Taxi Pilots	4,118
General Aviation Pilots	978
Controllers	609
Flight Attendants	310
Mechanics	160
Dispatchers	108
Military/Other	93
TOTAL	6,376