

CALLBACK

From NASA's Aviation Safety Reporting System



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RAMPING UP SAFETY

Airport ramp safety and associated hazards continually appear as common concerns in ASRS reported incidents. Reported ramp events range from routine to remarkable, while the hazards and associated threats may exist almost anywhere. Many hazards are familiar, while others are uncommon. They can be obvious or concealed, and are often unexpected. Unmitigated ramp hazards frequently result in significant property damage or injury to personnel.

The routine tasks and interactions required during ramp operations may combine to produce unique circumstances and peculiar threats. Recognizing the hazards and identifying the threats requires anticipation, attention to detail, and situational awareness to avoid incidents when hazards develop or already exist.

This month *CALLBACK* features reports taken from a cross section of ramp experiences. These excerpts illustrate a variety of ramp hazards that can be present. They describe the incidents that resulted and applaud the “saves” made by the Flight Crews and Ground Personnel involved.

A DOSE OF SAND AND FOD

This B737 Crew encountered a ramp hazard that is not uncommon, but got a surprise that grounded the aircraft, in part, because local authorities had altered the airport facility.

■ *[Our] aircraft arrived...and a normal exterior inspection was conducted with no abnormalities noted. There was a significant increase in wind strength directly behind the aircraft causing a dust storm. ... Shortly after [the storm], a Ramp Agent informed us of...debris in both the intake and exhaust sections of both engines. The debris consisted of dust, sand, and small particles of stone. ... The total quantity was estimated between one-fourth and one-half cup in each engine's exhaust section and about the same...in [each engine's] intake.*

Dispatch and Maintenance Control were consulted and contract maintainers were summoned. Debris was vacuumed out of all sections of the engines and inspections noted no other visible defects. The engines were then [run] at idle power for five minutes with no abnormalities noted from the flight deck engine instruments. Visual inspection of the engines, unfortunately, indicated that additional debris had been expelled from the hot section...during engine spool down. Maintenance Control...grounded the aircraft pending

a borescope inspection. ... There is certainly a significant cost to this incident.

The airport authority had recently replaced all of the infield grass and areas between the runways and taxiways with a sand and gravel mix.... I am certain this is the material that found its way into the engines. I am astonished more aircraft have not fallen victim to this hazard.

GETTING CAUGHT UP AT WORK

This Lead Ramp Agent, while striving for excellence in the performance of his duties, was surprisingly pulled in another direction. His co-worker likely prevented a serious injury.

From the Lead Ramp Agent's report:

■ *An Agent who was loading mail with me in the pit saw the lavatory service technician driving his equipment. He thought he was driving under the aircraft. I leaned [out] to see and...that is when my badge caught between the belt and the belt loader ramp and dragged my vest in.*

I yelled and the other Agent pushed the emergency stop. Many thanks to the Agent who did what he did to prevent any injury.

From the co-worker Ramp Agent's report:

■ *[While the flight was being serviced], I was in...the rear cargo hold [working] with the assistance of my Lead Ramp Agent. He...leaned over the end of the belt loader to check on a lavatory service truck that appeared to be under the aircraft fuselage. I heard him yell and turned to see his badge and vest caught between the baggage belt and the roller on the loader, and his face and chest [were] being pulled into the belt. I immediately hit the e-stop button and the belt stopped. Another Ramp Agent ran over...and turned off the belt loader key. We released the Lead's badge lanyard and vest from his neck and the other Agent restarted the belt. [The belt would not reverse, so] we...passed his badge through the same way it was pulled in.*

REENERGIZING EARLY

This CRJ-700 Captain received a surprise after he blocked in and noticed that he was being refueled even before the engines were shut down.

■ *The aircraft was operating without an APU due to a MEL [item]. Ground power and air were requested on the in-range call. Upon arrival at our gate, the left engine was*

shut down and the hand signal was given to the Ground Lead for ground power. The individual acknowledged with a nod. During this time the aircraft beacon was on. After several minutes waiting for ground power, I noticed on the EICAS that the fueler had hooked up to the aircraft. I immediately shut down the aircraft and went to emergency power. I went out to speak with the supervisor.... I explained the importance of stopping an unsafe action and keeping personnel clear of the number 2 engine. Further, I explained how dangerous it was to attempt to fuel an aircraft while an engine is running and with passengers on the aircraft.

MISSED COMMUNICATIONS – AGAIN

At the conclusion of his pushback, a B777 Captain received the “clear” signal that was clearly premature. The result was a taxi route that could have been presumed unobstructed, but was actually blocked by the tug.

■ *After pushback from [the] gate, the tug driver asked me to set brakes. I did. He then told me the towbar was disconnected. I told him to disconnect [his headset]. Within seconds after the towbar was disconnected from the aircraft, but while [the tug] was basically still directly under the nose of the aircraft and in front of the nose landing gear, the marshaller gave me the “all clear” free to taxi signal—even though the tug hadn’t moved! I have written this up time after time and it seems to be getting worse, not better. Someone is going to get killed if SOP is not followed!*

UNSAFE IN THE SAFETY ZONE

An Air Carrier Captain took evasive action while turning in to the gate when a ground vehicle ignored the right of way rules and sped through the safety zone.

■ *[As I was] turning in to [the] gate, a ground operations vehicle crossed directly in front of our aircraft. The vehicle was moving right to left at a high rate of speed...through the safety zone and directly across the lead-in line. To avoid a collision, I aggressively applied maximum wheel brakes, bringing the aircraft to a violent stop. After the vehicle had cleared the safety zone, we taxied in to the gate normally.*

BRIDGING THE GAP

This Air Carrier Crew was actively taking precautions and mitigating risk as they taxied to the gate. Just when they thought the flight was all but over, an unexpected, uncommon, and unnoticed threat abruptly became a reality.

■ *Light snow [was] obscuring most runway and taxiway markings. I approached the gate at a very slow pace (as the First Officer later described, “slower than a walk”). A Marshaller...was in place and had shoveled or plowed the*

lead-in line for us. The lead-in line was the only marking clearly visible on the ramp. There was no equipment adjacent to the Safety Zone, no hoses or cables in the Safety Zone, and...the jet bridge appeared to be in the correct location. We...verbalized that the safety zone was clear and I turned on to the lead-in line, continuing the very slow pace.

The snowfall had changed to very large flakes.... I checked the braking action and [announced that] braking was “good.” Continuing down the lead-in line, I remained focused on the Marshaller with the snow falling. As we neared the jet bridge...I secured the number 2 engine and verbalized doing so.... Shortly thereafter, we felt a slight thump and the aircraft stopped. I did not notice any jet bridge movement and the Marshaller was still signaling forward taxi.

Something did not seem right. I set the parking brake and opened my sliding window.... As soon as I saw the proximity of the jet bridge to the number 1 engine, I immediately shut down the engine. I then scanned the instruments for any signs of FOD ingestion. All indications were normal. The Marshaller never seemed to realize that we contacted the jet bridge.... There was about an eight by three inch puncture in the top leading edge of the engine inlet.... I realize now that the jet bridge was angled out of the Safety Zone normally but then [had been] extended...into the Safety Zone.

In the tradition of *CALLBACK*'s first editor, Captain Rex Hardy, I will abandon the anonymous editorial “we” for a short note in this, my last hurrah as *CALLBACK* editor. I have strived to carry on the high standards set first by Rex and then by my predecessor, Dr. Rowena Morrison. Now, after ten years in the dual roles of editor and safety analyst, culminating 50 years in the challenging, sometimes wild, but always wonderful world of military, commercial and private aviation, it is time for me to hang ’em up. The very capable Captain Ned Kintzing has picked up the reins and will carry on the *CALLBACK* tradition of providing concise, timely and valuable “lessons learned.”

I have always said that *CALLBACK* is a “community effort” and I would like to thank everyone on the ASRS staff for their insights and assistance in putting the newsletter together each month. I would like to thank you, the readers, for your kind words, for your constructive feedback, and most importantly, for sharing your safety reports with the aviation community.

Thank you and farewell,
Don Purdy

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June 2016 Report Intake

Air Carrier/Air Taxi Pilots	5,285
General Aviation Pilots	1,230
Controllers	661
Flight Attendants	587
Military/Other	343
Mechanics	196
Dispatchers	156
TOTAL	8,458