

CALLBACK

From NASA's Aviation Safety Reporting System



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To an interested observer, ramp operations at a modern-day airport may appear specialized and complex. Diverse, highly technical activities can occur in congested space, appearing chaotic, fast-paced, and dangerous. Arguably, a Ramp Area could be characterized as a hazardous work environment. Just consider the tasks required to quickly turn an aircraft from arrival to an on-time departure in close proximity to a myriad of other aircraft and vehicles with the same objective.

Typical ramp operations include marshalling, towing, chocking, and pushback, connecting and disconnecting ground services, handling baggage and freight, refueling, de-icing, and more.¹ Each service has its own peculiar hazards, and each must play well with the others.

This month, *CALLBACK* presents incidents revealing types of hazards that Ramp Agents face daily. We thank and salute Ramp Agents everywhere for their professionalism and excellence in safely handling aircraft around the world.

Part 121 – A Ramp-Adverse Technique

This ERJ-170 Pushback Operator identifies a technique that likely resulted in premature aircraft movement. Its efficacy is then addressed and evaluated.

■ *During the pre-departure phase of flight...the aircraft moved slightly backward while the Pushback Operator was climbing onto the unit to sit down. The nose gear chocks were still in place at the time and possibly were the reason the aircraft didn't move further. This occurred... [as] the out time was received, indicating a brake release. It's very possible the brake release was the cause of the uncommanded movement. This would indicate an early brake release. This uncommanded movement puts employees and passengers in danger of injury or fatality.*

Part 121 – An Unnecessary Injury

A Ramp Agent was injured while performing a task involving Dangerous Goods (DG), its packaging, and a dubious procedure. The injury may have been preventable.

■ *A Ramp Agent was running cargo, and the weather was rainy. The agent was told to pick up freight left on a belt loader between [two] gates...and bring it to the freight house. The agent grabbed the boxes, leaning [them] against*

[the agent's] upper body, and did not realize there was a leak from a parcel containing chemical/radioactive material. The next morning, the subject had skin pain and a burning feeling on the chest area and saw red radiation burn marks. The agent had a headache and rested during the day, then started feeling better by the end of the afternoon and headed for the airport. That evening, the agent reported the incident to the Ramp Supervisor. The Supervisor requested the agent to go to the hospital to be checked out. The agent had a blood sample pulled.... The doctor stated that no immediate danger existed and...that if a rash or blister developed...the agent should go back to the hospital. The uniform shirt and vest were turned in to management.

Part 121 – Inconsiderate Obstacles

This Pushback Operator encountered an uncooperative and unexpected ground obstacle during a commercial pushback. Safety was compromised and a collision was imminent.

■ *I was pushing gate X and was cleared to push. Wing Walkers held up the "clear to push" [signal] with lighted wands. As I was pushing, I had to slam on the brakes because a bus kept driving past my Wing Walker and almost [would have] hit the aircraft if I kept pushing. The bus stopped in the middle of my wing, and my Wing Walker walked up to him and motioned him to back up. He told me he held up the "X" [signal] to the bus and then told him to back up. The bus kept driving forward instead of backing up.*

Part 121 – Trading Safety for Stats?

A concerned Ramp Agent explains how late arriving DG allowed and promoted a non-standard technique to compromise safety.

■ *While loading the flight...there were two pieces of DG planned.... It was already close to departure time, and we were closed up when the driver came to deliver the DG to the gate. A call to the Supervisor was made [to see] whether we were to load it. The Supervisor said, "Just get a brake release, then load the commodity." If the commodities are already at the gate, why are we getting a brake release if we are clearly not ready for push? The Lead on the gate is new, so listening to her Supervisor, she did precisely that, and in all the hysteria, she forgot to secure the DG with 15 bags.*

The plane was closed up and pushed out with the utmost haste to get that on-time departure. Another Ramp Agent on the gate went inside to report this to the Supervisor along with myself, and the plane had to come back to the gate in order to secure the DG properly.

There seems to be a lot of issues lately with early brake releases and DG...and I am not confident everyone is getting the proper direction. Briefings are few and far between, and when they are held, the majority of the employees are outside working and never get to hear these important announcements or briefing items. My two issues are the disregard for Standard Operating Procedure (SOP) when it comes to brake release and the pressure that Ramp Agents and leads are under to get on-time performance or to avoid getting a delay. Brake releases are happening too often here...and the decision is always to load the bags or commodities when they arrive, anyway. The plane still sits at the gate while we load these items, so why does it matter if we get the on-time departure for the books? It's still at the gate! It is safer and easier to keep Ground Support Equipment where it belongs on the aircraft and load these items...safely, then close up and get a brake release and push out in a timely manner. It's only a matter of time before something happens that the crew can't walk away from.

Part 135 – Clear and Present Danger

This Marshaller responded quickly to the King Air's block-in surprise when it got to be up close and personal.

■ While marshalling in this airplane, I directed them to stop. They stopped, and while I was waiting for them to turn their engines off, they began to roll forward. I had noticed at this point that their heads were faced down as they were focused on something inside the cockpit. The aircraft rolled forward multiple feet causing me to run back and away from the aircraft. The pilots braked soon after but ended up multiple feet away from where I had parked them. They came to a stop where I was standing while initially marshalling them.

Part 121 – Ramp to the Rescue

When automation led this large transport aircraft astray, this alert Ramp Agent intervened to prevent a ground collision.

From one Ramp Agent's report:

■ The aircraft was on approach to the lead-in line. I was outside awaiting the aircraft per SOP... After I signaled "clear to proceed" to my crew and the Captain, the aircraft turned to approach the line via SOP. When the aircraft was proceeding down the lead-in line, the self-parking device at the gate took control as normal. All was proceeding

nominally, and I was observing the distance and preparing to chock the aircraft. While performing this task, the aircraft started to drift to my left gradually and then veered off drastically, overshooting the designated parking spot for the aircraft type. At this time, I had to stop my task and run out in front of the Captain's view signaling an emergency stop, which he performed ASAP. While this was happening, the aircraft was traveling toward a portable Ground Power Unit that was used on an earlier airstart outside the envelope. When all was clear, I looked up at the self-parking device. The screen was informing the flight crew that they...had two feet left to go. I informed Control and the Zone Supervisor of the situation and contacted the Captain informing him of what had happened. From there we set everything up for dispatch, received clearance to push back the aircraft, and brought the aircraft to the proper parking spot.

From another Ramp Agent's report:

■ The flight arriving at the gate veered off the lead-in line and went past the stop mark while the self-park system was being utilized by the flight crew. The Marshaller was...near the stop mark to insert the chocks after completion of the self-park arrival and had to wave the "emergency stop" hand signal to stop the aircraft and avoid any damage.

Part 121 – In the Chocks at Last

Ramp Agents describe a commercial fixed wing aircraft block-in as it eased in to, and greased out of, the chocks.

■ The aircraft was marshalled into the arrival gate and stopped at the appropriate line. The agent put chocks in and started walking away. The aircraft started rolling backward approximately 1.5 feet. Chocks had been properly installed, but the problem was deicing fluid still on the gate from the morning departures. Only the nose had been chocked at that point, as the "all clear" [signal] had not been given. The weight of the aircraft was able to move the rear chock due to the perfect scenario of the slight slope of the concrete and the slippery deicing fluid. The rear chock went between the two nose landing gear tires. The entire crew immediately noticed, and we were able to insert the chock back in place.

1. <https://skybrary.aero/articles/ground-handling>



NASA ASRS UAS/Drone Safety Reporting

Anyone involved in UAS/Drone operations can file a NASA ASRS report to describe close calls, hazards, violations, and safety related incidents.

ASRS Alerts Issued in September 2024	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	4
Airport Facility or Procedure	6
ATC Equipment or Procedure	11
Hazard to Flight	1
TOTAL	22

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

September 2024 Report Intake	
Air Carrier/Air Taxi Pilots	5,105
General Aviation Pilots	1,569
Flight Attendants	1,360
Mechanics	1,028
Military/Other	755
Controllers	335
Dispatchers	145
TOTAL	10,297