

# CALLBACK

From NASA's Aviation Safety Reporting System



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## THE OSTRICH AND THE EAGLE



### TWO APPROACHES TO TAXIING



F.O. Ostrich keeps his head down a lot,  
Doing his First Officer stuff.  
But this puts the ol' Captain on the spot,  
When one set of eyes isn't enough.

F.O. Eagle has a whole different plan,  
To stay alert and in the loop.  
He won't be caught with his head in the sand,  
When it's time to fly the coop.

There's a time 'n place for looking down,  
To input this and check on that.  
But taxiing's the time for looking 'round,  
Not for typing or checklist chat.

Distractions, including the use of electronic tablets, inputting Flight Management Computer data, sending or receiving ACARS messages, and running checklists while on the move, can all jeopardize safe ground operations. A heads-down First Officer compromises the situational awareness that safe taxi operations demand. Add an unfamiliar airport, new procedures, complicated taxi instructions, confusing signage, or congested frequencies, and the opportunities for embarrassing or dangerous mistakes increase dramatically.

#### TAXIING IN THE REAL WORLD

Aviation requires some degree of multi-tasking, but never at the expense of vigilance. With the First Officer heads down during taxi, this B737 Crew had a nighttime near miss.

■ *In preparation for taxi at night we decided to run the Before Takeoff Checklist before moving the aircraft due to the busy environment. Our intent was to mitigate the threats that this checklist imposes, knowing full well that we may have to re-run it if the runway gets changed. Upon taxi out, the runway was changed and I went heads down to do everything I needed to do and run the Before Takeoff Checklist while the Captain taxied slowly toward the new runway. We elected to wait for my heads down time until we were on a relatively straight taxiway. While I was heads down, another aircraft cut across in front of us and was momentarily blocked from the Captain's view by the windshield post. I was unable to assist and warn the Captain of the crossing aircraft because I did not see it as I was too busy... Since implementation of the new checklist I have*

*felt ... extremely uncomfortable with my lack of situational awareness while taxiing. This near miss on a taxiway is just one example of the potential dangers of this much heads down time while taxiing in the real world.*

#### WHEN FOCUS IS DIVERTED, ERRORS RESULT

A B737 Captain reported on expectation bias resulting in a taxiway incursion while his First Officer was heads down.

■ *I briefed the anticipated taxi. I identified and briefed the threat of taxiing without our final [numbers]. We began to taxi ... and we received the final weights. The First Officer verbalized "heads down" as he input the numbers. We received error messages in the performance data ... and simultaneously were given [new taxi] instructions. We both had our attention focused on resolving the weight and balance issue, and I taxied on the anticipated route I had briefed [initially]. I had heard what I anticipated hearing because my attention was diverted.*

*I am left feeling completely out of the loop regarding takeoff performance ... because I am not able to review the information while I taxi. [Running the] checklist ... while I am taxiing and listening to ATC does not give me an adequate picture of the takeoff performance nor am I able to verify that the correct entries have been made. The safest operation has both pilots focusing on one task at a time (not necessarily the same task) and when that focus is diverted, errors may result.*

#### RIGHT RUNWAY, WRONG FLAP SETTING

There are several critical components to check before takeoff. This B737 Captain reported how changes during taxi interrupted those checks and resulted in an incorrect flap setting.

■ *The flaps were set incorrectly for takeoff. I had a new First Officer who was getting used to normal cockpit duties and flows and we were given a last-minute runway and ATIS change during taxi out. We discussed the changes, reviewed the [performance] changes, programmed the FMS, reviewed the departure instructions, and were given an immediate takeoff clearance.*

*We ran the Before Takeoff Checklist and I ran a [mnemonic] check ..., but failed to set the parking brake and rerun the Before Taxi Checklist... and therefore missed reselecting the flaps. We proceeded with our takeoff with a flap setting for the previous runway selection.*

*As Captain, I knew the new First Officer was burdened with a lot of last-minute changes and [I] should have set the parking brake to allow time to complete the previous checklist and rerun the Before Taxi Checklist, which are my normal triggers for checking flap settings on the [performance computer].*

## I FEEL THE NEED... THE NEED FOR V-SPEEDS

Distractions that come late in the taxi or on the runway leave little time for catching or correcting mistakes. An A321 First Officer shared this lesson on delayed distractions.

■ *The Takeoff Checklist had been completed “Down to the Line.” As we accomplished the “Below the Line” portion of the checklist, we realized that the wrong runway was loaded. When we were cleared for takeoff, I changed the runway, but was distracted by a company message and attempted to review and clear it. I can’t remember if I had the Performance page up or not when we got the ENG THR LEVERS NOT SET. I advised the Captain to set TOGA and we continued the takeoff. Above 80 knots, we realized that the V-speeds were not displayed on the Primary Flight Display so I called them out. The remainder of the takeoff and climb out proceeded uneventfully.*

*V-speeds and Flex Temperature are deleted when a new runway is loaded into the FMS and the new numbers need to be confirmed or manually loaded. I would have caught this had I not been distracted by the company message.*

## OUTSIDE (THE) LOOP

Threat and error management is becoming more widely adopted as a systems approach to aviation safety. A report from a B737 First Officer points out how distractions make it difficult “to stay in the loop” and watch for threats while taxiing.

■ *The new [procedure] is very difficult to execute while keeping any sort of situational awareness outside the cockpit. We elected not to do any single engine taxiing due to the high workload. On several occasions I was heads down for so long ... that I was not aware of where we were taxiing.... It gets very busy trying to ... load the [FMC] and get the takeoff data all while trying to stay in the loop.... As a First Officer who normally likes to be able to ... scan the situation for potential threats, I find that it is not possible with the new procedure.*

ASRS Alerts Issued in October 2015	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	3
ATC Equipment or Procedure	2
<b>TOTAL</b>	<b>5</b>

## TEXTING WHILE TUGGING

A Regional Jet Captain reported on a texting event outside the airplane that resulted in a close call on the ramp.

■ *We were cleared to enter on the left side of the ramp and taxi to the gate. I looked to the left and noticed several vehicles yielding to us. I called, “Clear left” and then noticed an object moving from the right in my peripheral vision. I saw a tug pulling two baggage carts and the operator of the vehicle texting on a cell phone and heading at a fast speed directly toward us. I slammed on the brakes bringing the aircraft to a stop with the nose just over the ramp entrance. The driver just happened to look up and slammed on the brakes making a hard right turn back into the ramp and missed hitting us by about 15 feet. Had I not stopped..., he would have struck the nose of the aircraft.*

## CELL PHONE TOWER CONVERSATION

Dealing with distractions is not a problem limited to flight crews. An Air Traffic Controller reported how aircraft monitoring technology overcame the self-induced distractions that affected a group of Tower Controllers.

■ *A B737 landed and was instructed to turn right to join the parallel taxiway and to contact Ramp Control. Without visually scanning, the Controller assumed the aircraft had turned off at the first intersection, but he hadn’t. The Controller then cleared the DHC8 for takeoff and ... shortly thereafter the Airport Surface Detection Equipment issued the alarm, “Warning. Runway occupied.” The Controller instructed the DHC8 pilot to abort the takeoff. The pilot complied and turned off the runway approximately 2,500 short of the intersection where the B737 ultimately cleared. At the time there were four other positions staffed including an Area Supervisor/Controller-in-Charge position and no one saw this event developing on the main runway even though it was not busy at the time. I believe this happened due to distractions in the work area, most notably, extraneous conversations and the heads down use of cell phones while working.*

## TWO OSTRICHES ARE NOT BETTER THAN ONE

Heads down mishaps are not limited to ground operations. Dealing with last minute approach changes, this B737 crew had four eyes focused inside when one eagle-eyed glance outside could have prevented a go-around.

■ *Because both of us were heads down frantically trying to resolve the last minute approach change, we failed to see that it was VFR and we could have just requested a visual approach....*

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## October 2015 Report Intake

Air Carrier/Air Taxi Pilots	4,795
General Aviation Pilots	1,124
Controllers	477
Flight Attendants	416
Military/Other	325
Dispatchers	144
Mechanics	142
<b>TOTAL</b>	<b>7,423</b>