

CALLBACK



From NASA's Aviation Safety Reporting System

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ASRS POST-SEASON GAME REVIEW

Those who are suffering withdrawal from the football season will be cheered up to realize that the movement of aircraft across an airport's surface is not unlike a football game. ATC is the "quarterback" and calls the plays. The "line" is composed of aircraft taxiing, holding, taking off, and landing. The "snap" occurs when ATC issues a "cleared to" instruction. When all goes well, aircraft move in a well-sequenced and predictable choreography. But when communications break down, safety incidents are often the result.

This month we look at incidents reported to ASRS that involve aircraft (or vehicles) "in motion" erroneously. Our incident selection includes runway incursions, a wrong direction takeoff, a taxi without clearance, a takeoff without clearance, and a "cops and robbers" airport chase.

In most of these events, better radio technique, stronger checklist discipline, and enhanced situational awareness might have prevented these incidents from occurring.

FIRST DOWN—Encroachment

Although an air carrier crew showed laudable caution in trying to confirm a clearance to take the runway, accepting the clearance without hearing a call sign tripped them up.

■ We were on Taxiway B enroute to Runway 28R. We were #1 for that runway, and no other aircraft [were] around. We completed the Before Takeoff checklist then switched to Tower control as we approached the end of the runway. We heard Tower say a call sign (which we thought was ours) 'cleared for takeoff.' Because we had just switched over, and the transmission seemed a little garbled, the First Officer said confirm company number cleared for takeoff Runway 28R. Then we heard an 'affirmative.' We continued around the corner into position on the runway, but didn't quite have a warm and fuzzy [feeling], since we didn't hear the controller repeat our call sign when we were confirming our takeoff clearance. So we stopped at the normal position and hold area on the runway, and asked Tower please confirm company number cleared for takeoff. Then the controller stated 'negative,' you are not even cleared to be on the runway. We taxied clear immediately...

The Tower controller was apparently working two separate frequencies and had cleared someone on the other side

of the airport for takeoff. The 'affirmative' the controller gave...was for another aircraft on the other frequency...The lesson learned...is that...we should have gotten [ATC] to say our call sign and repeat the clearance before crossing the hold short line. Fortunately final was clear and there were no other aircraft around and no conflicts.

SECOND DOWN—Offside

After multiple tests and inspections of a B737-300 at the gate, maintenance technicians were unable to duplicate a takeoff warning horn fault. The technicians asked ATC for permission to do a "power run" on an inactive runway, in an attempt to duplicate the condition the pilots had experienced.

■ ... We were told that we could use the inactive runway (my understanding). We taxied to the runway and I advanced throttles past 33% (to activate the takeoff warning system) with park brake released. I taxied for a short time to see if the fault would occur with the throttles advanced. No warning horn. I returned throttles to idle and started braking action. I was not able to make the taxiway E turnoff and deployed thrust reversers to stop as quickly as I could. I was not aware that the active runway was the next intersection. When the aircraft was stopped, it was approximately 1/2 airplane [length] over the hold short line.

Better planning and use of the airport diagram might have helped these technicians be aware of the proximity of an active runway to the location of the power run.

THIRD DOWN—Wrong Direction Run

■ I called Tower ready for takeoff and was cleared for takeoff from Runway 31 at intersection B. I acknowledged this clearance and taxied into position on Runway 13 by mistake without realizing it, and added takeoff power. As I was taxiing into position, I had noticed a jet landing on the intersecting Runway 05 and thought it somewhat odd that I would have been cleared for takeoff. But instead of querying Tower, I assumed the other aircraft was given a LAHSO [Land and Hold Short] clearance. Tower noticed the problem... and cancelled my takeoff clearance. I retarded the throttle and stopped 2,000 feet short of the runway intersection. The other aircraft was also stopped prior to reaching the intersection.

I could have prevented this issue in a variety of ways. First, with a runway combination of...13/31 that could easily be confused, I need to be vigilant that I hear the right runway number and taxi onto the correct one by careful reference to the directional gyro or compass. Also, if anything at all seems even slightly out of the ordinary, it is dangerous to make assumptions. If in doubt, always ask.



| ASRS Alerts Issued in January 2007 | |
|-------------------------------------|---------------|
| Subject of Alert | No. of Alerts |
| Aircraft or aircraft equipment | 4 |
| Airport facility or procedure | 2 |
| ATC procedure or equipment | 2 |
| Chart, Publication, or Nav Database | 3 |
| TOTAL | 11 |

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| January 2007 Report Intake | |
|--------------------------------|-------------|
| Air Carrier/Air Taxi Pilots | 2376 |
| General Aviation Pilots | 782 |
| Controllers | 132 |
| Cabin/Mechanics/Military/Other | 201 |
| TOTAL | 3491 |

Illegal Motion

A BAe 146 flight crew, spectating instead of communicating, received a surprise call from ATC.

■ *Engines were started and taxi commenced to the pre-briefed departure runway, Runway 36. Before Takeoff checklist was called for and completed during the initial taxi...My attention turned to observing for bird flocks as large numbers of seagulls were present on the airport... I remarked to the First Officer that the flocks seemed to have moved away from the runway. We continued the taxi southbound...Nearing the end of this taxi, I remarked again to the First Officer that the large flocks of birds seemed to be away from the runway... Nearing the departure end of Runway 36, Ground queried us asking 'Air carrier X, are you on frequency?' The First Officer replied 'Affirmative, is there a problem?' (I was anticipating information concerning a gate hold at ZZZ or perhaps a bird report.) Ground replied, 'You taxied without a clearance.' We both were in disbelief, thinking we had been cleared to taxi. Ground then asked us to change to Tower control, which we did, and were subsequently cleared for takeoff on Runway 36.*



Ignoring the Playbook

A PA-32 pilot embarked on a flight without realizing the play had changed.

■ *I removed my plane from its hangar...intending to take the plane for a test flight for the first time since its annual inspection was conducted...I did my preflight check and turned on the radios through my main avionics switch that turns all my avionic instruments on to the pre-set positions. I did not hear any traffic. Believing that the airport Tower had not opened and that the airport was still uncontrolled...I made a determination that the most appropriate direction for takeoff would be on Runway 23. I announced to traffic that I was first, taxiing to the active. I looked in the sky and saw no traffic and received no response from traffic but remained listening on the radio and then announced my departure on the active, Runway 23. After takeoff I did not hear any communications, so I started adjusting the avionics and discovered the squelch, volume controls and toggle switches were all altered from their normal positions, apparently done during the annual inspection. Once I made the adjustment, I immediately heard the 'chatter' and contacted the Tower. I was informed that I was in serious trouble and immediately returned to the airport, landed, and called the Tower on my cell phone... I believe that my mistake was caused by my failure to recognize that the avionics setting had been changed from their pre-set positions, causing the inadvertent mistake of not*

having communications with the Tower...I have learned a substantial lesson regarding improving my preflight checks to include adjustment of all switches on all instruments.

Too Many Players on the Field

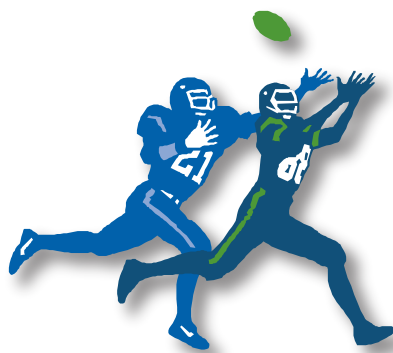
An A-320 flight crew might have had better field position with a clearer call from ATC.

■ *The flight pushed back...and on taxi out we heard a discussion between the Tower and police that something was on the runway and the police were in chase. The Tower never said anything about a vehicle, nor did the police on the radio. We both assumed he was chasing down a loose deer or animal on the runway (airport has had alligators on the runway before).*

Next, Tower stated to the police that he needed to clear the runway for a departing aircraft (he was referring to us but we were still on the ramp about 500 yards short of the taxiway). The police stated...'I can clear the runway but I am not sure he will listen.' At this point I still assumed we were talking about an animal on the field, since there was no urgency in the controller's voice.

At this point, I turned onto the taxiway headed nose west for Runway 06. We were doing our Before Takeoff checklist when Tower responded to us, 'Be advised that the vehicle passing you on your right no one is talking to.' I looked off the right side of the aircraft...when a vehicle came passing by at a high rate of speed. Just then, the police vehicle passed us also at a high rate of speed in chase. The vehicles sped toward the far end of the runway at which point I decided to stop the aircraft where we were until we [could] figure out what was going on.

The vehicle and the police car turned back toward the aircraft and headed for us on the taxiway...and passed under the wing... We stayed put and saw the chase continued out on the runway...



After a few minutes, Tower came back on the radio stating that the suspect had been apprehended and that we could continue our taxi to Runway 06 for departure. I asked for a runway inspection to verify that nothing had fallen off the vehicles during the chase and was lying on the runway. The Tower

had a vehicle run the entire length of the runway in search of any FOD. After this, we were cleared for takeoff.

In retrospect, if I had known that the thing loose on the runway was a vehicle with police in chase, I would never have left the gate.