

CALLBACK

From NASA's Aviation Safety Reporting System



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TOO CLOSE FOR COMFORT



The FAA Advisory Circular 90-48D, “Pilot’s Role in Collision Avoidance,” showed that from January 2009 through December 2013, a total of 42 midair collisions occurred in the United States.¹ During this same time period, there were 461 reported Near Midair Collisions (NMACs).¹ Statistics indicate that the majority of these midair collisions and NMACs occurred in good weather and during daylight hours.¹

ASRS has received many reports of both NMACs and critical ground conflicts. Incidents have occurred in all shapes and sizes, and in good weather or bad. Contributing factors are numerous. Fatigue and lack of situational awareness have often been observed. Errors in judgment and faulty decisions have been commonly identified, while poor communication and noncompliance with regulations have also been widely reported. The growing number of conflicts with Unmanned Aerial Systems (UASs), or drones, has been a relatively recent development.

This month, *CALLBACK* shares NMAC and critical ground conflict reports that reveal the serious nature of the phenomena and the tragic consequences that could result. Our intent is to stimulate pilot awareness and discussion of Near Midair Collisions and critical ground conflicts toward the goal of eliminating collisions and reducing the number of conflicts in the air and on the ground.

Clouded Layers

A CRJ-700 Captain experienced an NMAC while operating in instrument conditions in the Atlanta Class B Airspace. Had the TCAS been inoperative or the pilot not immediately complied with the advisory, the conflict could have been worse.

■ *We were flying the downwind leg of the HOBTT TWO ARRIVAL, Runway 27L transition, between FOGER and HITTT intersections, descending from 7,000 feet to 3,000 feet. At approximately 3,800 feet, TRACON amended our assigned altitude to 3,500 feet. I acknowledged the clearance and warned TRACON that we would likely dip slightly below the new assigned altitude in the process of capturing 3,500 feet. TRACON responded, “That’s fine,” and advised us of VFR traffic to the northeast of us at 3,000 feet. I do not recall the distance to the traffic at the initial call. We briefly descended to 3,300 feet but quickly recovered to 3,500 feet.*

A few seconds later, a TCAS target appeared at our 11 o’clock position, 5 miles distant, 300 feet below us, and climbing. The Pilot Flying (PF) sighted the aircraft a few seconds before I did, and a moment later we received a “CLIMB” 1,500 feet-per-minute TCAS Resolution Advisory (RA). The PF complied with the RA immediately. At this point I got a good look at the target, rolling into a right bank. According to the TCAS, the Beechcraft flew 100 feet below us with no lateral separation.

After receiving, “CLEAR OF CONFLICT” from TCAS, TRACON cleared us to descend to 3,000 feet, and we continued the arrival and approach.

We were between layers at the time of this event. It did not appear that the TRACON Controller working us at the time was communicating with the Beechcraft—we never heard any radio traffic to or from that aircraft. I can’t imagine how the operator of the Beechcraft thought VFR flight through the Atlanta Class B [Airspace] in marginal conditions was a good idea.

What You Can't See - Can Hurt You

This air taxi Captain was diligent to mitigate situational threats during the approach at this non-towered airport. Nearing the runway an unexpected hazard emerged, and a potential accident was averted.

■ *Heavy snow was falling in the area of my intended destination, and runways were closed by NOTAM. I, as Captain, and a ...First Officer were scheduled to fly, and the Terminal Area Forecast (TAF) showed weather to improve. We called the airport, ...and they confirmed that about 8 inches of snow had fallen and that they were in the process of clearing it. The weather improved, and we were released by...Dispatch. One runway was opened, though one remained closed by NOTAM. We called the airport and verified the airport condition of one inch or less plowed snow and that a runway was open. The initial part of the flight was uneventful, and we requested an RNAV Approach utilizing Localizer Performance with Vertical Guidance (LPV) minimums.*

Center verified that one runway was closed, but one runway was open. We began the approach and checked again with UNICOM regarding runway condition (plowed and open).

The Pilot Monitoring (PM) made at least three CTAF calls that I can recall. Upon reaching minimums, the first approximately 1,000 feet of the runway was clearly visible, and descent for normal landing was initiated. Shortly afterward, a dark vehicle that looked like a snow plow was observed about 500 feet down the runway, halfway on the east side moving toward the runway threshold. Both I and the First Officer observed the vehicle. We executed a missed approach and queried UNICOM about the status of the runway. Shortly afterward, they said that the runway was now clear. A subsequent approach resulted in a missed approach due to deteriorating conditions. Visibility at this time was reported below our applicable minimums, and we went to our alternate. At the time it only seemed like an inconvenience, but we were incredibly fortunate that the vehicle was not further down the runway where it was not yet visible and where our ability to avoid a collision [would have been] minimized.

A Defining Moment

A B737 crew was departing after an Embraer 145 had just landed on, and exited, a parallel runway. A conflict developed as the two aircraft approached each other during the high workload environment.

From the B737 First Officer's Report:

■ Because of the wind gusts and rain, we elected to make a maximum thrust takeoff on Runway 06L, ...which gave us a V1 speed of approximately 111 knots. We were cleared for takeoff, and everything was normal. Aircraft were landing on Runway 06R, and at V1 speed, I noticed an Embraer 145 that had landed clearing onto taxiway D3. ... It was supposed to hold short of our runway, but at approximately 130 to 140 knots, we could see that it had missed its hold short area. If the aircraft continued onto our runway, I think we could have rotated and cleared it, but it would have been close. The Tower called for them to stop, and they did so just on the edge of our runway. I steered our aircraft just to the left of centerline to give us some extra room, and we took off at our normal rotate speed. After we changed frequency, ATC asked us a couple of questions, and we continued to destination without other incident.

From the Embraer 145 Captain's Report:

■ The flight was involved in a runway incursion...on high speed exit taxiway D3 (Hotspot 5) from Runway 06R toward Runway 6L (stopped past a runway hold short marking) while a B737 was rotating from Runway 06L. We taxied to our parking terminal after the runway was cleared.

We were slowing down to a safe taxi speed on Runway 06R from the ILS Runway 06R approach and landing. As I was

taking over the aircraft from the FO...at around 80 knots, ATC instructed us to plan to exit on high speed D3 (hotspot 5) and hold short of Runway 06L, which my FO [read] back correctly and I acknowledged. Both windshield wipers were at high speed due to moderate precipitation. As we were exiting on D3, I asked my FO to run the After Landing Checklist after we had cleared the runway. I had noticed that the B737 was on the [takeoff] roll on Runway 06L, but my primary concern at that high speed exit...was to be on center line (I do not recall if green taxi lights were on) on taxiway D3 and identifying the hold short line or lights for Runway 06L on D3. ATC called, "Stop," as I was slowing to taxi speed to keep looking for the hold short line on Taxiway D3.... The FO was finishing up the After Landing Checklist. We immediately stopped the aircraft on D3 before the runway and saw the B737 lifting off from the takeoff roll. It seems [that the] hold short lines for the adjacent parallel runway come up quicker than I was expecting to see them, even though I have reviewed the Jeppesen publications for special pages and the airport diagram.

[I should] pay more attention to reviewing the airport taxi plan and diagram. [I should also] stop the aircraft any time [I am] in doubt on a taxiway. Enhancing visual references for the hold short line on such a short intersecting taxiway [would be helpful].

They're Everywhere

This light transport Captain was IFR and had the normal expectation of safe traffic separation while being vectored around densely populated airspace. The ensuing conflict was abrupt, without warning, and completely unexpected.

■ We were given multiple level-offs and heading assignments to get us around Kennedy/New York airspace and eventually on course. Cloud bases were scattered at about 7,500 feet. At the time of the encounter, we were VMC, level at 7,000 feet, speed 240 knots. I was comparing aircraft that we could see outside with what was being shown on the TCAS. I then saw what I initially thought was a seagull at our altitude. Closer examination and proximity revealed that it was a drone at our altitude. The closing speed was at least 240 knots, possibly more. It passed off our right wingtip by about 50 feet. It was black, about the size of a baking sheet. There seemed to be an apparatus hanging from the bottom of the drone that was metallic in color. Possibly, [it was] a rig to drop an object, but I can't be certain or knowledgeable enough to make a certain claim. I made a report to ATC, giving them as many details as possible.

1. FAA Advisory Circular 90-48D, Pilot's Role in Collision Avoidance (with Change 1), 4/19/16, para. 3.1.

ASRS Alerts Issued in September 2018	
Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	5
Other	1
TOTAL	8

466
A Monthly Safety
Newsletter from
The NASA
Aviation Safety
Reporting System
P.O. Box 189
Moffett Field, CA
94035-0189
<https://asrs.arc.nasa.gov>

September 2018 Report Intake	
Air Carrier/Air Taxi Pilots	4,536
General Aviation Pilots	1,289
Controllers	466
Flight Attendants	397
Military/Other	252
Mechanics	237
Dispatchers	114
TOTAL	7,291