



National Transportation Safety Board Aviation Incident Data Summary

Location:	Detroit, MI	Incident Number:	OPS10IA003
Date & Time:	12/04/2009, 1021 EST	Registration:	
Aircraft:		Injuries:	52 None
Flight Conducted Under:			

Analysis

The Ground Control East (GCE) controller cleared Fire 2, an airport ground vehicle, to cross runway 21R at taxiway F in front of Pinnacle Airlines (FLG) flight 3720, a departing regional jet. According to crew statements, FLG3720 rotated normally and was about 150 feet above ground level when it passed the intersection of the runway and taxiway F. There was no damage to either the aircraft or the fire truck, and no reported injuries.

The Local Control East (LCE) controller cleared FLG3720 into position to hold on runway 21R at 1019:33, and was cleared for takeoff about a minute later. At 1020:29, Fire 2 contacted the GCE controller with a request, but the GCE controller could not understand the transmission and asked Fire 2 to repeat his request. Fire 2 responded, "I'm at Station 100 like [taxiway] Fox[trot] over to the [runway] 3L deice pad." The GCE controller replied, "Approved as requested." At 1021:35, Fire 2 reported clear of runway 3L. At 1021:43, GCE transmitted, "...you said the [runway] 22R deice pad." Fire 2 replied, "No, I said the [runway] 3L, sir."

DTW airport was equipped with an ASDE-X ground movement radar system that provided aircraft and vehicle tracking capabilities as well as conflict detection. According to recorded data, the system detected a conflict between Fire 2 and FLG3720 at 1021:25, just before Fire 2 entered the runway. Fire 2 completed crossing the runway and exited at taxiway F at 1021:32. FLG3720 passed taxiway F at 1021:37.

The ground controller was still in training, and was still in the process of being certified on all control positions in the tower. The day before the incident, he had been certified on the two east ground control positions by a supervisor. His certification occurred on the evening shift and took about an hour. The ground controller acknowledged that during his training he had received various comments from his instructors about scanning the airport surface, but he stated that generally they were "hit and miss" issues and did not reflect consistent deficiencies.

The supervisor said that there were no unusual conditions to help explain what had occurred. There was no construction in progress, no weather affecting the airport, no rain, and no distractions. Some aircraft had controlled departure times that needed to be assigned. However, this did not affect the operation of the time.

Since the incursion, the instructor provided some advice to the ground controller about control techniques that might help prevent him from encountering a similar problem in the future, in particular, discontinuing use of the phraseology, "proceed as requested." Issuance of specific instructions to a pilot or vehicle operator may result in a correction or other feedback from the operator. However, the instructor further noted that requiring controllers to always read back the entire request from a vehicle operator or pilot may result in lengthy, but unnecessary exchanges on the radio.

Flight Events

Takeoff - Runway incursion veh/AC/person

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be:
The ground controller did not monitor the progress of the fire truck to ensure that the driver followed the expected route. A contributing factor was the ground controller's misunderstanding of the fire truck driver's requested destination on the airport.

Findings

Personnel issues-Task performance-Communication (personnel)-Accuracy of communication-ATC personnel - F

Personnel issues-Action/decision-Action-Incorrect action selection-ATC personnel - C

Aircraft and Owner/Operator Information

Aircraft Manufacturer:

Registration:

Model/Series:

Engines:

Operator:

Engine Manufacturer:

Air Carrier Operating Certificate: Commuter Air Carrier (135)

Engine Model/Series:

Flight Conducted Under:

Meteorological Information and Flight Plan

Observation Facility, Elevation: DTW, 645 ft msl

Weather Information Source: Weather Observation Facility

Conditions at Accident Site: Visual Conditions

Lowest Ceiling:

Condition of Light: Day

Wind Speed/Gusts, Direction: 17 knots/ 21 knots, 240°

Temperature: -1° C / -7° C

Visibility: 10 Miles

Precipitation and Obscuration:

Departure Point: Detroit, MI (DTW)

Destination: Wilkes-Barre, PA (AVP)

Airport Information

Airport: Detroit Wayne County (DTW)

Runway Surface Type: Concrete

Runway Used: 21R

Runway Surface Condition: Dry

Runway Length/Width: 8501 ft / 200 ft

Wreckage and Impact Information

Crew Injuries: 4 None

Aircraft Damage: None

Passenger Injuries: 48 None

Aircraft Fire: None

Ground Injuries: N/A

Aircraft Explosion: None

Administrative Information

Investigator In Charge (IIC): Scott J Dunham

Adopted Date: 06/04/2010

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=75179>

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