



Aviation Investigation Final Report

Location:	Covington, Kentucky	Incident Number:	OPS111A173
Date & Time:	December 9, 2010, 11:25 Local	Registration:	N3731T
Aircraft:	Boeing 737-832	Aircraft Damage:	None
Defining Event:	Air traffic event	Injuries:	92 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

A Boeing B737 was instructed to line up and wait on the runway while a helicopter crossed the proposed departure path at a low level four miles south of the airport. After the helicopter conflict was resolved, the B737 was issued takeoff clearance, but contrary to Federal Aviation Administration requirements, the B737 was not advised of the E-145 on approach to the same runway. Less than ½ nautical mile on short final, the E-145 queried the tower local controller if they should go around. About the same time, the Airport Movement Area Safety System alerted. Prior to the E-145 crossing the landing threshold, and as the B737 began its takeoff roll, the tower local controller instructed the E-145 to go around. The E-145 did not overfly the B737 and there was no loss of separation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: The local controller's distraction with a helicopter south of the field.

Findings

Personnel issues	Forgotten action/omission - ATC personnel
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Factual Information

History of Flight

Taxi-into takeoff position	Air traffic event (Defining event)
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The local control center (LCC) controller in the Cincinnati/Northern Kentucky International Airport (CVG) air traffic control tower (ATCT) cleared Trans State Airlines (LOF) Flight 8069, call-sign Water-Ski, an E-145 to land on runway 18C. Delta Air Lines (DAL) Flight 2809, a B738, had been instructed to line up and wait (LUAW) on runway 18C. The LCC withheld the takeoff clearance for the B738 until a helicopter had crossed the departure path at low level, four miles south of the airport. The LCC momentarily lost sight of the helicopter and could not locate the helicopter on the tower radar presentation. After re-acquiring the helicopter and determining that no conflict existed for the departing B738, the LCC issued the B738 a takeoff clearance. Contrary to FAA orders, the takeoff clearance did not include traffic information that another aircraft, the E-145, was on approach to the same runway. On short final for runway 18C, the E-145 queried the local controller if they should go around, as they were inside of 1/2 nautical mile final to runway 18C and the B738 was in position on the approach end of runway 18C. At approximately the same time, the tower Airport Movement Area Safety System (AMASS) alerted to the developing conflict between the B738 and the E-145. Prior to the E-145 crossing the landing threshold, the LCC instructed the E-145 to go around; fly runway heading and climb and maintain 4,000 feet. The E-145 passed to the right side of the runway 18C landing threshold and did not overfly the B737.

The FAA identified this event as a significant operational error; "SIGNIFICANT OPERATIONAL ERROR/1125E/OPERATIONAL ERROR REPORTED WHEN TRANS WORLD EXPRESS 8069, EMBRAER E145, WAS CLEARED TO LAND RWY 18C WITH DELTA 2809, B738, CLEARED TO DEPART SAME RUNWAY. TRANS WORLD EXPRESS 8069 WAS THEN ISSUED GO AROUND AND OVERFLEW DELTA 2809 DURING TAKEOFF ROLL. CLOSEST PROXIMITY 300 FEET VERTICAL."

An on-site investigation and analysis of ATC data by NTSB and FAA investigators revealed that an operational error did not occur. The E-145 offset its flight path during the go-around and passed to the right side of the landing threshold and the departing B738. While it was determined that the local controllers performance was not in compliance with local operating procedures or FAA Order 7110.65 and the missed approach instructions could have been more definitive, a loss of separation did not occur and assured separation was established prior to the E-145 crossing the landing threshold.

Information

Certificate:	Age:
Airplane Rating(s):	Seat Occupied:
Other Aircraft Rating(s):	Restraint Used:
Instrument Rating(s):	Second Pilot Present:
Instructor Rating(s):	Toxicology Performed:
Medical Certification:	Last FAA Medical Exam:
Occupational Pilot:	Last Flight Review or Equivalent:
Flight Time:	

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N3731T
Model/Series:	737-832	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	30775
Landing Gear Type:	Unknown	Seats:	189
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Turbo jet
Airframe Total Time:		Engine Manufacturer:	CFM INTL.
ELT:		Engine Model/Series:	CFM56 SERIES
Registered Owner:	DELTA AIR LINES INC	Rated Power:	2200 Horsepower
Operator:	DELTA AIRLINES INC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	D02M

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCVG	Distance from Accident Site:	
Observation Time:	10:52 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 14000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.3 inches Hg	Temperature/Dew Point:	-5°C / -13°C
Precipitation and Obscuration:			
Departure Point:	Covington, KY (CVG)	Type of Flight Plan Filed:	IFR
Destination:	Fort Lauderdale, FL (KFL)	Type of Clearance:	IFR
Departure Time:	11:25 Local	Type of Airspace:	Air traffic control;Class B

Airport Information

Airport:	Cincinnati/Northern Kentucky I CVG	Runway Surface Type:	
Airport Elevation:	896 ft msl	Runway Surface Condition:	Dry
Runway Used:	18C	IFR Approach:	Unknown
Runway Length/Width:	11000 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	5 None	Aircraft Damage:	None
Passenger Injuries:	87 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	92 None	Latitude, Longitude:	39.042499,-84.667778(est)

Administrative Information

Investigator In Charge (IIC): Bartlett, Daniel

Additional Participating Persons:

Original Publish Date: October 3, 2011

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=77974>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).



Aviation Investigation Final Report

Location:	Covington, Kentucky	Incident Number:	OPS111A173
Date & Time:	December 9, 2010, 11:25 Local	Registration:	N840HK
Aircraft:	Embraer EMB-145LR	Aircraft Damage:	None
Defining Event:	Air traffic event	Injuries:	N/A
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

A Boeing B737 was instructed to line up and wait on the runway while a helicopter crossed the proposed departure path at a low level four miles south of the airport. After the helicopter conflict was resolved, the B737 was issued takeoff clearance, but contrary to Federal Aviation Administration requirements, the B737 was not advised of the E-145 on approach to the same runway. Less than ½ nautical mile on short final, the E-145 queried the tower local controller if they should go around. About the same time, the Airport Movement Area Safety System alerted. Prior to the E-145 crossing the landing threshold, and as the B737 began its takeoff roll, the tower local controller instructed the E-145 to go around. The E-145 did not overfly the B737 and there was no loss of separation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: The local controller's distraction with a helicopter south of the field.

Findings

Personnel issues	Incorrect action performance - ATC personnel
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Factual Information

History of Flight

Approach-IFR final approach Air traffic event

The local control center (LCC) controller in the Cincinnati/Northern Kentucky International Airport (CVG) air traffic control tower (ATCT) cleared Trans State Airlines (LOF) Flight 8069, call-sign Water-Ski, an E-145 to land on runway 18C. Delta Air Lines (DAL) Flight 2809, a B738, had been instructed to line up and wait (LUAW) on runway 18C. The LCC withheld the takeoff clearance for the B738 until a helicopter had crossed the departure path at low level, four miles south of the airport. The LCC momentarily lost sight of the helicopter and could not locate the helicopter on the tower radar presentation. After re-acquiring the helicopter and determining that no conflict existed for the departing B738, the LCC issued the B738 a takeoff clearance. Contrary to FAA orders, the takeoff clearance did not include traffic information that another aircraft, the E-145, was on approach to the same runway. On short final for runway 18C, the E-145 queried the local controller if they should go around, as they were inside of 1/2 nautical mile final to runway 18C and the B738 was in position on the approach end of runway 18C. At approximately the same time, the tower Airport Movement Area Safety System (AMASS) alerted to the developing conflict between the B738 and the E-145. Prior to the E-145 crossing the landing threshold, the LCC instructed the E-145 to go around; fly runway heading and climb and maintain 4,000 feet. The E-145 passed to the right side of the runway 18C landing threshold and did not overfly the B737.

The FAA identified this event as a significant operational error; "SIGNIFICANT OPERATIONAL ERROR/1125E/OPERATIONAL ERROR REPORTED WHEN TRANS WORLD EXPRESS 8069, EMBRAER E145, WAS CLEARED TO LAND RWY 18C WITH DELTA 2809, B738, CLEARED TO DEPART SAME RUNWAY. TRANS WORLD EXPRESS 8069 WAS THEN ISSUED GO AROUND AND OVERFLEW DELTA 2809 DURING TAKEOFF ROLL. CLOSEST PROXIMITY 300 FEET VERTICAL."

An on-site investigation and analysis of ATC data by NTSB and FAA investigators revealed that an operational error did not occur. The E-145 offset its flight path during the go-around and passed to the right side of the landing threshold and the departing B738. While it was determined that the local controllers performance was not in compliance with local operating procedures or FAA Order 7110.65 and the missed approach instructions could have been more definitive, a loss of separation did not occur and assured separation was established prior to the E-145 crossing the landing threshold.

Information

Certificate:	Age:
Airplane Rating(s):	Seat Occupied:
Other Aircraft Rating(s):	Restraint Used:
Instrument Rating(s):	Second Pilot Present:
Instructor Rating(s):	Toxicology Performed:
Medical Certification:	Last FAA Medical Exam:
Occupational Pilot:	Last Flight Review or Equivalent:
Flight Time:	

Aircraft and Owner/Operator Information

Aircraft Make:	Embraer	Registration:	N840HK
Model/Series:	EMB-145LR	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Unknown	Serial Number:	145341
Landing Gear Type:	Unknown	Seats:	55
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:		Engine Manufacturer:	ROLLS-ROYCE
ELT:		Engine Model/Series:	AE3007 SER
Registered Owner:	AFS INVESTMENTS XIV LLC	Rated Power:	7200 Horsepower
Operator:	TRANS STATES AIRLINES INC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	RAIA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCVG	Distance from Accident Site:	
Observation Time:	10:52 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 14000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.3 inches Hg	Temperature/Dew Point:	-5°C / -13°C
Precipitation and Obscuration:			
Departure Point:	Chicago, IL (ORD)	Type of Flight Plan Filed:	IFR
Destination:	Covington, KY (CVG)	Type of Clearance:	IFR
Departure Time:	15:40 UTC	Type of Airspace:	Air traffic control;Class B

Airport Information

Airport:	Cincinnati/Northern Kentucky I CVG	Runway Surface Type:	
Airport Elevation:	896 ft msl	Runway Surface Condition:	Dry
Runway Used:	18C	IFR Approach:	Unknown
Runway Length/Width:	11000 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	N/A	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	N/A	Latitude, Longitude:	39.042499,-84.667778(est)

Administrative Information

Investigator In Charge (IIC): Bartlett, Daniel

Additional Participating Persons:

Original Publish Date: October 3, 2011

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=77974>

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