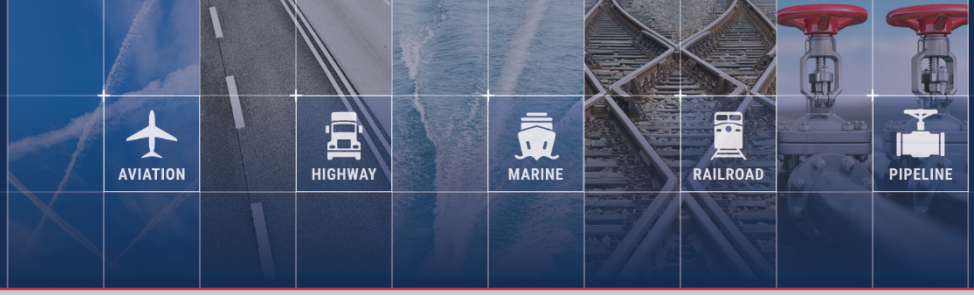

Aviation Investigation Final Report

Location:	Austin, Texas	**Incident Number:**	DCA23FA149
Date & Time:	February 4, 2023, 06:40 Local	**Registration:**	N7827A (A1); N297FE (A2)
Aircraft:	Boeing 737-79P (A1); Boeing 767-32LF (A2)	**Aircraft Damage:**	None (A1); None (A2)
Defining Event:	Runway incursion veh/AC/person	**Injuries:**	128 None (A1); 3 None (A2)
Flight Conducted Under:	Part 121: Air carrier - Scheduled (A1); Part 121: Air carrier - Non-scheduled (A2)		

Analysis

On February 4, 2023, about 0640 central standard time, Southwest Airlines (SWA) flight 708, a Boeing 737-700, N7827A, and Federal Express Corporation (FedEx) flight 1432, a Boeing 767-300, N297FE, were involved in a runway incursion at Austin Bergstrom International Airport (AUS), Austin, Texas. The flight crew of the FedEx airplane, which was arriving on runway 18L, executed a missed approach as the SWA airplane was departing from the same runway. The 128 occupants aboard the SWA airplane and the 3 occupants aboard the FedEx airplane were not injured, and neither airplane sustained damage. SWA flight 708 was a regularly scheduled international passenger flight operating under Title 14 *Code of Federal Regulations* (*CFR*) Part 121 from AUS to Cancún International Airport (CUN), Cancún, Mexico. FedEx flight 1432 was a domestic cargo flight operating under Part 121 from Memphis International Airport (MEM), Memphis, Tennessee, to AUS. Night instrument meteorological conditions prevailed at the time of the incident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

the local controller's incorrect assumption that the Southwest Airlines (SWA) airplane would depart from the runway before the Federal Express airplane arrived on the same runway, which resulted in a loss of separation between both airplanes. Contributing to the controller's

incorrect assumption were his expectation bias regarding the SWA airplane's departure, his lack of situational awareness regarding the SWA airplane's position when the flight crew requested takeoff clearance, and the air traffic control tower's lack of training (before the incident) on low visibility operations. Contributing to the incident was the SWA flight crewmembers' failure to account for the traffic that was on short final approach and to notify the controller that they would need additional time on the runway before the takeoff roll. Also contributing to the incident was the Federal Aviation Administration's failure to require surface detection equipment at Austin-Bergstrom International Airport and direct alerting for flight crews.

Findings

Personnel issues (A1)	Expectation/assumption - ATC personnel
Personnel issues (A1)	Task monitoring/vigilance - ATC personnel
Organizational issues (A1)	Recurrent training - ATC
Personnel issues (A1)	Monitoring environment - Flight crew
Personnel issues (A1)	Lack of communication - Flight crew
Organizational issues (A1)	Equipment requirements - FAA/Regulator
Aircraft (A1)	Data recorders (flight/maint) - Design
Personnel issues (A2)	Expectation/assumption - ATC personnel
Personnel issues (A2)	Monitoring other aircraft - ATC personnel
Organizational issues (A2)	Recurrent training - ATC
Personnel issues (A2)	Monitoring environment - Pilot of other aircraft
Personnel issues (A2)	Lack of communication - Pilot of other aircraft
Organizational issues (A2)	Equipment requirements - FAA/Regulator

Factual Information

History of Flight

Takeoff (A1)	Runway incursion veh/AC/person (Defining event)
Approach-IFR missed approach (A2)	Near midair/TCAS alert/loss of separation

Pilot Information (A1)

Certificate:	Airline transport	**Age:**	54,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Airship	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	February 14, 2023
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	August 7, 2022
Flight Time:	20600 hours (Total, all aircraft), 6000 hours (Total, this make and model), 17200 hours (Pilot In Command, all aircraft), 140 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Co-pilot Information (A1)

Certificate:	Airline transport; Commercial	**Age:**	49,Male
Airplane Rating(s):	Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 2 Without waivers/limitations	**Last FAA Medical Exam:**	August 1, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	January 21, 2023
Flight Time:	8907 hours (Total, all aircraft), 4893 hours (Total, this make and model), 2515 hours (Pilot In Command, all aircraft), 230 hours (Last 90 days, all aircraft), 79 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Pilot Information (A2)

Certificate:	Airline transport; Commercial	**Age:**	56
Airplane Rating(s):	Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	August 1, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	23500 hours (Total, all aircraft), 16000 hours (Total, this make and model)		

Pilot Information (A2)

Certificate:	Airline transport; Commercial	**Age:**	49
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	November 10, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	8000 hours (Total, all aircraft), 465 hours (Total, this make and model)		

Aircraft and Owner/Operator Information (A1)

Aircraft Make:	Boeing	**Registration:**	N7827A
Model/Series:	737-79P	**Aircraft Category:**	Airplane
Year of Manufacture:	2003	**Amateur Built:**	
Airworthiness Certificate:	Transport	**Serial Number:**	28255
Landing Gear Type:	Retractable - Tricycle	**Seats:**	151
Date/Type of Last Inspection:	January 29, 2023 Continuous airworthiness	**Certified Max Gross Wt.:**	155000 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo fan
Airframe Total Time:	56774 Hrs as of last inspection	**Engine Manufacturer:**	CFM INTL
ELT:	Installed, not activated	**Engine Model/Series:**	CFM56-7B24
Registered Owner:	SOUTHWEST AIRLINES CO	**Rated Power:**	24200 Lbs thrust
Operator:	SOUTHWEST AIRLINES CO	**Operating Certificate(s) Held:**	Flag carrier (121)

Aircraft and Owner/Operator Information (A2)

Aircraft Make:	Boeing	**Registration:**	N297FE
Model/Series:	767-32LF	**Aircraft Category:**	Airplane
Year of Manufacture:	2012	**Amateur Built:**	
Airworthiness Certificate:	Unknown	**Serial Number:**	41068
Landing Gear Type:	Tricycle	**Seats:**	292
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	2 Turbo fan
Airframe Total Time:		**Engine Manufacturer:**	GE
ELT:		**Engine Model/Series:**	CF6-80C2B6F
Registered Owner:	FEDERAL EXPRESS CORP	**Rated Power:**	60030 Lbs thrust
Operator:	FEDERAL EXPRESS CORP	**Operating Certificate(s) Held:**	Flag carrier (121)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	AUS	**Distance from Accident Site:**	
Observation Time:	06:18 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.43 inches Hg	**Temperature/Dew Point:**	-1.1°C / -1.1°C
Precipitation and Obscuration:			
Departure Point:	Austin, TX (A1); Memphis, TN (KMEM) (A2)	**Type of Flight Plan Filed:**	IFR (A1); IFR (A2)
Destination:	Cancun, Mexico (MMEX) (A1); Austin, TX (A2)	**Type of Clearance:**	IFR (A1); Unknown (A2)
Departure Time:		**Type of Airspace:**	Class C (A1); Unknown (A2)

Airport Information

Airport:	Austin-Bergstrom International Airport AUS	**Runway Surface Type:**	Concrete
Airport Elevation:	541 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18L	**IFR Approach:**	None
Runway Length/Width:	9000 ft / 150 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information (A1)

Crew Injuries:	5 None	**Aircraft Damage:**	None
Passenger Injuries:	123 None	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	128 None	**Latitude, Longitude:**	30.1975,-97.6664

Wreckage and Impact Information (A2)

Crew Injuries:	3 None	**Aircraft Damage:**	None
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	30.1975,-97.6664

Administrative Information

Investigator In Charge (IIC):	Hauf, Michael
Additional Participating Persons:	Erin Carroll; Southwest - Flight Safety Scott Reeves; Federal Express Ian Carrero ; Alpa Charles "Andy" Olvis; FAA Matthew A. Cain; SWAPA Dan Meyers ; NATCA John Eller; Honeywell; Phoenix, AZ Jacob Zeiger; Boeing Air Safety Investigation; WA
Original Publish Date:	June 24, 2024
Last Revision Date:	
Investigation Class:	Class 1
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106680

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.