



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Nashville, Tennessee	<b>Accident Number:</b>	DCA19CA130
<b>Date &amp; Time:</b>	March 27, 2019, 19:25 Local	<b>Registration:</b>	N249WN
<b>Aircraft:</b>	Boeing 737	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Birdstrike	<b>Injuries:</b>	N/A
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Scheduled		

## Analysis

On March 27, 2019 at 7:25pm central daylight time (EDT), a Boeing 737-700, N249WN, operated by Southwest Airlines as flight 975 struck a bird with the left horizontal stabilizer while descending through 2,500 feet on approach to the Berry-Nashville International Airport (KBNA), Nashville, Tennessee. The airplane landed at KBNA with no further incident. There were no injuries and the airplane was substantial damaged. The regularly scheduled passenger flight was operating under the provisions of 14 CFR Part 121 from the Pittsburgh International Airport (KPIT), Pittsburgh, Pennsylvania, to KBNA.

Damage to the airplane included a 12 inch crack in the forward spar, requiring replacement of the horizontal stabilizer. Bird residue was sent to the Smithsonian Museum of Natural History laboratory, and identified as a Great Blue Heron.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a collision with a bird.

## Findings

<b>Environmental issues</b>	Animal(s)/bird(s) - Effect on equipment
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## Factual Information

### History of Flight

Approach	Birdstrike (Defining event)
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### Pilot Information

Certificate:	Airline transport; Flight engineer	Age:	56
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 13, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 16, 2018
Flight Time:	23718 hours (Total, all aircraft), 15630 hours (Total, this make and model), 14771 hours (Pilot In Command, all aircraft), 154 hours (Last 90 days, all aircraft), 62 hours (Last 30 days, all aircraft), 2.5 hours (Last 24 hours, all aircraft)		

### Co-pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	33
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	February 12, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 18, 2019
Flight Time:	4988 hours (Total, all aircraft), 1317 hours (Total, this make and model), 1128 hours (Pilot In Command, all aircraft), 161 hours (Last 90 days, all aircraft), 61 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N249WN
<b>Model/Series:</b>	737 7H4	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2006	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	34951
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	151
<b>Date/Type of Last Inspection:</b>	February 19, 2019	<b>Certified Max Gross Wt.:</b>	154500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo fan
<b>Airframe Total Time:</b>	44455 Hrs at time of accident	<b>Engine Manufacturer:</b>	Cfm Intl
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	CFM56-7B24
<b>Registered Owner:</b>	Southwest Airlines Co	<b>Rated Power:</b>	10142 Horsepower
<b>Operator:</b>	Southwest Airlines	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	KBNA	<b>Distance from Accident Site:</b>	10 Nautical Miles
<b>Observation Time:</b>	23:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 2500 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.25 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 2°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Pittsburgh, PA (KPIT)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Nashville, TN (KBNA)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	19:25 Local	<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	Nashville International Airpor KBNA	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	599 ft msl	<b>Runway Surface Condition:</b>	Unknown
<b>Runway Used:</b>		<b>IFR Approach:</b>	Visual
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	N/A	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	N/A	<b>Latitude, Longitude:</b>	36.124443,-86.678054

## Administrative Information

**Investigator In Charge (IIC):** English, William

**Additional Participating Persons:**

**Original Publish Date:** August 23, 2019

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:** This accident report documents the factual circumstances of this accident as described to the NTSB.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=99199>

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