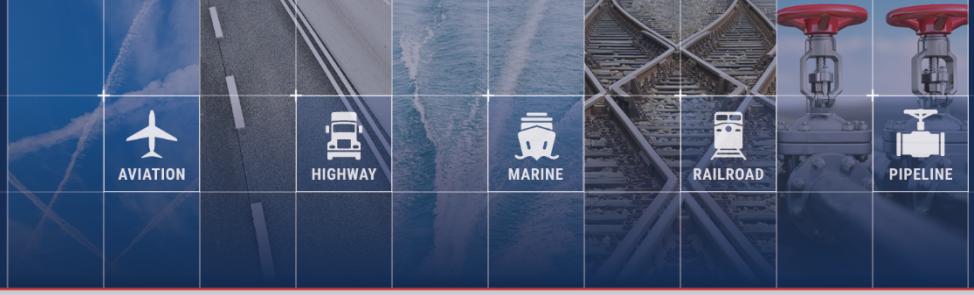

Aviation Investigation Final Report

Location:	Weehawken, New Jersey	**Accident Number:**	DCA09MA026
Date & Time:	January 15, 2009, 15:30 Local	**Registration:**	N106US
Aircraft:	Airbus A320	**Aircraft Damage:**	Substantial
Defining Event:	Birdstrike	**Injuries:**	5 Serious, 150 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

The Safety Board's full report is available at http://www.ntsb.gov/publictn/A_Acc1.htm. The Aircraft Accident Report number is NTSB/AAR-10/03.

On January 15, 2009, about 1527 eastern standard time, US Airways flight 1549, an Airbus Industrie A320-214, N106US, experienced an almost complete loss of thrust in both engines after encountering a flock of birds and was subsequently ditched on the Hudson River about 8.5 miles from LaGuardia Airport (LGA), New York City, New York. The flight was en route to Charlotte Douglas International Airport, Charlotte, North Carolina, and had departed LGA about 2 minutes before the in-flight event occurred. The 150 passengers, including a lap held child, and 5 crewmembers evacuated the airplane via the forward and overwing exits. One flight attendant and four passengers were seriously injured, and the airplane was substantially damaged. The scheduled, domestic passenger flight was operating under the provisions of 14 Code of Federal Regulations Part 121 on an instrument flight rules flight plan. Visual meteorological conditions prevailed at the time of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The ingestion of large birds into each engine, which resulted in an almost total loss of thrust in both engines and the subsequent ditching on the Hudson River. Contributing to the fuselage damage and resulting unavailability of the aft slide/rafts were (1) the Federal Aviation Administration's approval of ditching certification without determining whether pilots could attain the ditching parameters without engine thrust, (2) the lack of industry flight crew training

and guidance on ditching techniques, and (3) the captain's resulting difficulty maintaining his intended airspeed on final approach due to the task saturation resulting from the emergency situation.

Contributing to the survivability of the accident was (1) the decision-making of the flight crewmembers and their crew resource management during the accident sequence; (2) the fortuitous use of an airplane that was equipped for an extended overwater flight, including the availability of the forward slide/rafts, even though it was not required to be so equipped; (3) the performance of the cabin crewmembers while expediting the evacuation of the airplane; and (4) the proximity of the emergency responders to the accident site and their immediate and appropriate response to the accident.

Findings

Environmental issues	Animal(s)/bird(s) - Effect on equipment
Organizational issues	Equip certification/testing - FAA/Regulator
Aircraft	(general) - Related operating info
Aircraft	Airspeed - Not attained/maintained
Environmental issues	Other pressure/demand - Effect on personnel
Aircraft	(general) - Not specified
Organizational issues	(general) - Airport
Aircraft	Passenger compartment equip - Related operating info
Environmental issues	(general) - Not specified
Aircraft	(general) - Design
Personnel issues	Following instructions - Passenger

Factual Information

History of Flight

Initial climb	Birdstrike (Defining event)
Landing	Ditching
Post-impact	Aircraft structural failure
Post-impact	Evacuation

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On January 15, 2009, about 1527 eastern standard time, US Airways flight 1549, an Airbus Industrie A320-214, N106US, experienced an almost complete loss of thrust in both engines after encountering a flock of birds and was subsequently ditched on the Hudson River about 8.5 miles from LaGuardia Airport (LGA), New York City, New York. The flight was en route to Charlotte Douglas International Airport, Charlotte, North Carolina, and had departed LGA about 2 minutes before the in-flight event occurred. The 150 passengers, including a lap held child, and 5 crewmembers evacuated the airplane via the forward and overwing exits. One flight attendant and four passengers were seriously injured, and the airplane was substantially damaged. The scheduled, domestic passenger flight was operating under the provisions of 14 Code of Federal Regulations Part 121 on an instrument flight rules flight plan. Visual meteorological conditions prevailed at the time of the accident.

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:	Airbus	**Registration:**	N106US
Model/Series:	A320 214	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Transport	**Serial Number:**	1044
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	2 Turbo fan
Airframe Total Time:		**Engine Manufacturer:**	CFM
ELT:	Installed, not activated	**Engine Model/Series:**	CFM56 5B
Registered Owner:	Wells Fargo Northwest NA Trustee	**Rated Power:**	
Operator:	US AIRWAYS INC	**Operating Certificate(s) Held:**	Flag carrier (121)
Operator Does Business As:		**Operator Designator Code:**	USAA

Meteorological Information and Flight Plan

Conditions at Accident Site:		**Condition of Light:**	
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	New York, NY (LGA)	**Type of Flight Plan Filed:**	IFR
Destination:	Charlotte, NC (CLT)	**Type of Clearance:**	IFR
Departure Time:	15:20 Local	**Type of Airspace:**	

Airport Information

Airport:	New York La Guardia LGA	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious, 4 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	4 Serious, 146 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	5 Serious, 150 None	**Latitude, Longitude:**	40.7695,-74.0046(est)

Administrative Information

Investigator In Charge (IIC):	Benzon, Robert
Additional Participating Persons:	
Original Publish Date:	May 28, 2010
Last Revision Date:	
Investigation Class:	Class 1
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=73240

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.