



Aviation Investigation Final Report

Location:	HONOLULU, Pacific Ocean	Accident Number:	DCA15LA067
Date & Time:	February 15, 2015, 01:03 UTC	Registration:	N59053
Aircraft:	Boeing 767	Aircraft Damage:	None
Defining Event:	Turbulence encounter	Injuries:	1 Serious, 4 Minor, 245 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

On February 15, 2015, about 0103 coordinated universal time, United Airlines flight 15, a Boeing 767-400ER, N59053, encountered severe turbulence over the Pacific Ocean while enroute to Honolulu International Airport (HNL), Honolulu, Hawaii. Of the 250 passengers and crew onboard, one flight attendant was seriously injured, and three flight attendants and one passenger sustained minor injuries. The airplane was not damaged. The flight was operating under 14 Code of Federal Regulations Part 121 as a regularly scheduled passenger flight from Newark Liberty International Airport (EWR), Newark, New Jersey, to HNL.

The flight was uneventful from EWR across the continental United States. Once over the Pacific Ocean, the flight received an ACARS message from dispatch advising of an area of possible embedded thunderstorms. The flight experienced light to moderate turbulence for most of the remaining flight, which required the seat belt sign to remain on most of the time.

About an hour from HNL, the captain returned early from his crew rest time because he noticed that the flight was encountering areas of moderate turbulence. Prior to entering the flight deck, the captain noticed that the flight attendants (FA) were seated in their jumpseats and advised the lead FA to not conduct the final service and remain seated. Shortly after retaking the left seat, and as the flight was passing immediately south of a line of embedded of the forecasted thunderstorms, the captain requested a descent from their cruising altitude of flight level (FL)360 to FL240. The flight crew reported they were in instrument meteorological conditions with precipitation during the descent. The weather radar was on and the seatbelt sign was illuminated. The flight encountered an area of severe turbulence for about 30 seconds as it was descending through FL254. The flight data recorder data indicate that the vertical acceleration fluctuated between about -0.17 g's and +1.62 g's, the lateral acceleration fluctuated between about -0.09 g's and +0.11 g's, and the roll fluctuated between about 5° left and 12° right.

At the time of the turbulence, the FAs were securing the galleys, preparing the cabin for landing, and distributing agriculture documents. Four flight attendants (FA) in the aft galley were thrown against the ceiling and back to the floor, injuring all four. After being notified of the serious injuries, the flight crew declared an emergency with air traffic control and arranged for medical personnel to meet the aircraft at HNL. The four flight attendants were transported to the hospital where one flight attendant was diagnosed with a fractured arm and the other three were released with minor injuries. After landing the crew were notified by a passenger that their child had suffered a bloody nose, who was treated but not transported to the hospital.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: an encounter with convective turbulence associated with a forecasted area of thunderstorms.

Findings

Environmental issues	
	Convective turbulence - Effect on personnel

Factual Information

History of Flight

Enroute	Turbulence encounter (Defining event)
---------	---------------------------------------

On February 15, 2015, about 0103 coordinated universal time, United Airlines flight 15, a Boeing 767-400ER, N59053, encountered severe turbulence over the Pacific Ocean while enroute to Honolulu International Airport (HNL), Honolulu, Hawaii. Of the 250 passengers and crew onboard, one flight attendant was seriously injured, and three flight attendants and one passenger sustained minor injuries. The airplane was not damaged. The flight was operating under 14 Code of Federal Regulations Part 121 as a regularly scheduled passenger flight from Newark Liberty International Airport (EWR), Newark, New Jersey, to HNL.

The flight was uneventful from EWR across the continental United States. Once over the Pacific Ocean, the flight received an ACARS message from dispatch advising of an area of possible embedded thunderstorms. The flight experienced light to moderate turbulence for most of the remaining flight, which required the seat belt sign to remain on most of the time.

About an hour from HNL, the captain returned early from his crew rest time because he noticed that the flight was encountering areas of moderate turbulence. Prior to entering the flight deck, the captain noticed that the flight attendants (FA) were seated in their jumpseats and advised the lead FA to not conduct the final service and remain seated. Shortly after retaking the left seat, and as the flight was passing immediately south of a line of embedded of the forecasted thunderstorms, the captain requested a descent from their cruising altitude of flight level (FL)360 to FL240. The flight crew reported they were in instrument meteorological conditions with precipitation during the descent. The weather radar was on and the seatbelt sign was illuminated. The flight encountered an area of severe turbulence for about 30 seconds as it was descending through FL254. The flight data recorder data indicate that the vertical acceleration fluctuated between about -0.17 g's and +1.62 g's, the lateral acceleration fluctuated between about -0.09 g's and +0.11 g's, and the roll fluctuated between about 5° left and 12° right.

At the time of the turbulence, the FAs were securing the galleys, preparing the cabin for landing, and distributing agriculture documents. Four flight attendants (FA) in the aft galley were thrown against the ceiling and back to the floor, injuring all four. After being notified of the serious injuries, the flight crew declared an emergency with air traffic control and arranged for medical personnel to meet the aircraft at HNL. The four flight attendants were transported to the hospital where one flight attendant was diagnosed with a fractured arm and the other three were released with minor injuries. After landing the crew were notified by a passenger that their child had suffered a bloody nose, who was treated but not transported to the hospital.

Pilot Information

Certificate:	Airline transport	Age:	61, Male
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:	December 5, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 11, 2014
Flight Time:	30000 hours (Total, all aircraft), 6000 hours (Total, this make and model), 168 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Airline transport; Commercial; Flight engineer	Age:	51, Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap only
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	February 12, 2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 4, 2014
Flight Time:	15000 hours (Total, all aircraft), 7500 hours (Total, this make and model), 6000 hours (Pilot In Command, all aircraft), 225 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N59053
Model/Series:	767 400ER	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	29448
Landing Gear Type:	Retractable - Tricycle	Seats:	259
Date/Type of Last Inspection:	February 14, 2015 Continuous airworthiness	Certified Max Gross Wt.:	450000 lbs
Time Since Last Inspection:		Engines:	
Airframe Total Time:	63732 Hrs at time of accident	Engine Manufacturer:	
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:	UNITED AIRLINES INC	Rated Power:	
Operator:	UNITED AIR LINES INC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	UALA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	97 knots /	Turbulence Type Forecast/Actual:	/ Clear air
Wind Direction:	257°	Turbulence Severity Forecast/Actual:	/ Severe
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	-25°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Newark, NJ (KEWR)	Type of Flight Plan Filed:	IFR
Destination:	Honolulu, HI (KHNL)	Type of Clearance:	IFR
Departure Time:	09:53 Local	Type of Airspace:	Class A

Wreckage and Impact Information

Crew Injuries:	1 Serious, 3 Minor, 7 None	Aircraft Damage:	None
Passenger Injuries:	1 Minor, 238 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 4 Minor, 245 None	Latitude, Longitude:	22.608888,-153.843048(est)

Administrative Information

Investigator In Charge (IIC):	LeBaron, Timothy
Additional Participating Persons:	David Gerlach; FAA
Original Publish Date:	June 8, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=90744

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](#).