



National Transportation Safety Board Aviation Accident Data Summary

Location:	Oakland, CA	Accident Number:	WPR12LA053
Date & Time:	12/01/2011, 1953 PST	Registration:	N261WN
Aircraft:	BOEING 737-7H4	Injuries:	1 Serious, 2 Minor, 97 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

The flight was transitioning through an area of known severe turbulence. One of the flight attendants reported that the flight crew asked the cabin crew to secure the cabin early as they expected to encounter turbulence during the descent. Shortly thereafter, the airplane encountered severe turbulence and the flight attendants were thrown about the galley; one sustained a serious injury. The cockpit voice recorder contained audio that was not relevant to the flight (it was likely recorded over by subsequent events), thus it could not be conclusively determined when the flight crew asked the flight attendants to be seated because they could not recall. It is likely that the flight crew's request for the cabin to be secured was close to the time of the turbulence encounter, since none of the flight attendants had completed securing the service items when the encounter occurred. Synoptic conditions were favorable for mountain wave activity and a significant meteorological information (SIGMET) advisory and airmen's meteorological information advisories had been issued for turbulence over the region. The flight crew also had an advisory issued from their enhanced weather information systems for severe turbulence. The event occurred in the region that the SIGMET and the advisory for severe turbulence had been issued. According to the filed flight plan, the flight was to descend before entering the advisory area for weather avoidance; however, the planned descent was not followed.

Flight Events

Enroute - Turbulence encounter

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The flight crew's flight into known severe turbulence associated with mountain wave activity.

Findings

Personnel issues-Action/decision-Action-(general)-Pilot - C

Environmental issues-Conditions/weather/phenomena-Turbulence-Clear air turbulence-Effect on personnel - C

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	52
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	17210 hours (Total, all aircraft), 15710 hours (Total, this make and model), 13275 hours (Pilot In Command, all aircraft), 194 hours (Last 90 days, all aircraft), 63 hours (Last 30 days, all aircraft)		

Co-Pilot Information

Certificate:	Airline Transport; Commercial	Age:	42
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	8391 hours (Total, all aircraft), 4785 hours (Total, this make and model), 2450 hours (Pilot In Command, all aircraft), 123 hours (Last 90 days, all aircraft), 95 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BOEING	Registration:	N261WN
Model/Series:	737-7H4	Engines:	2 Turbo Fan
Operator:	SOUTHWEST AIRLINES CO	Engine Manufacturer:	CFM INTL
Air Carrier Operating Certificate:	Flag carrier (121)	Engine Model/Series:	CFM56-7B24
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	MMH, 7135 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	6 knots, 270°
Temperature:	-6° C / -15° C	Visibility:	10 Miles
Precipitation and Obscuration:	No Precipitation		
Departure Point:	Albuquerque, NM (ABQ)	Destination:	Oakland, CA (OAK)

Airport Information

Airport:	Oakland International Airport (OAK)	Runway Surface Type:	
Runway Used:	N/A	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Serious, 2 Minor, 2 None	Aircraft Damage:	None
Passenger Injuries:	95 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Tealeye Cornejo

Adopted Date: 10/29/2013

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82465>

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