



Aviation Investigation Final Report

Location:	Mammoth Lakes, California	Accident Number:	WPR15CA110
Date & Time:	February 9, 2015, 17:00 Local	Registration:	N49WC
Aircraft:	RAYTHEON AIRCRAFT COMPANY B300	Aircraft Damage:	Substantial
Defining Event:	Turbulence encounter	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The pilot reported that while in a descent from 16,000 feet, at 1,500 feet per minute, slowing from 190 knots indicated airspeed to 160 knots, the airplane encountered extreme turbulence. The pilot reported one hard jolt up/down followed by about 15 seconds of light turbulence then one final hard jolt similar to the first. The weather was visual conditions and no turbulence was encountered prior to or after the event. A postflight examination of the airplane revealed that the extreme turbulence encountered resulted in substantial structural damage to both wings spars.

The pilot reported there were no pre-impact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The airplane encountered extreme turbulence during descent.

Findings

Environmental issues (general) - Effect on equipment

Factual Information

History of Flight

Enroute-descent	Turbulence encounter (Defining event)
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Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	36
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-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:	April 28, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 14, 2015
Flight Time:	3800 hours (Total, all aircraft), 1300 hours (Total, this make and model), 3009 hours (Pilot In Command, all aircraft), 110 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Commercial; Flight instructor	Age:	28
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	July 31, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 20, 2014
Flight Time:	2180 hours (Total, all aircraft), 100 hours (Total, this make and model), 2035 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1.2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	RAYTHEON AIRCRAFT COMPANY	Registration:	N49WC
Model/Series:	B300 UNDESIGNAT	Aircraft Category:	Airplane
Year of Manufacture:	1996	Amateur Built:	
Airworthiness Certificate:	Commuter	Serial Number:	FL-144
Landing Gear Type:	Retractable - Tricycle	Seats:	11
Date/Type of Last Inspection:	January 6, 2015 Continuous airworthiness	Certified Max Gross Wt.:	15000 lbs
Time Since Last Inspection:	55 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	9205.5 Hrs at time of accident	Engine Manufacturer:	Pratt & Whitney
ELT:	C126 installed, not activated	Engine Model/Series:	PT6A-60A
Registered Owner:	AMERICAN CAREER COLLEGE INC	Rated Power:	1050 Horsepower
Operator:	WEST COAST CHARTERS INC	Operating Certificate(s) Held:	On-demand air taxi (135), Fractional ownership
Operator Does Business As:		Operator Designator Code:	GSPA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBIH,4145 ft msl	Distance from Accident Site:	28 Nautical Miles
Observation Time:	00:56 Local	Direction from Accident Site:	323°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	18°C / -11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Santa Ana, CA (SNA)	Type of Flight Plan Filed:	IFR
Destination:	Mammoth Lakes, CA (MMH)	Type of Clearance:	IFR
Departure Time:	15:30 Local	Type of Airspace:	Class E

Airport Information

Airport:	MAMMOTH YOSEMITE MMH	Runway Surface Type:	Asphalt
Airport Elevation:	7135 ft msl	Runway Surface Condition:	Unknown
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	7000 ft / 100 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	37,-118(est)

Administrative Information

Investigator In Charge (IIC):	Jones, Patrick
Additional Participating Persons:	HUGH J ROCHE; FAA; RENO, NV Mike Gibbons; Textron Aviation; Wichita, KS
Original Publish Date:	June 1, 2015
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=90758

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