



National Transportation Safety Board Aviation Accident Final Report

Location:	Big Bear City, CA	Accident Number:	LAX03LA163
Date & Time:	06/01/2003, 1500 PDT	Registration:	N18142
Aircraft:	Beech 58	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane sustained substantial damage during a hard landing. A witness to the accident stated that the airplane was approaching "too hot" and touched down three separate times due to its high approach speed. On the third touchdown, the airplane's landing gear collapsed and the airplane slid to a stop. Photographs of the runway surface displayed a noticeable crack running the length of the runway, left of the centerline. Significant markings were located approximately midpoint down the runway. Two parallel black skid marks with irregular zigzag patterns, exhibiting heavy tread markings, were also visible left of the centerline. These skid marks were about 6 feet apart and parallel to the runway centerline. The left skid mark was located about 6 inches left of the crack. The right skid mark was located about 5 feet to the right of the crack. There were two sets of six thin scrape marks dimensionally similar to propeller slashes in the runway surface located adjacent to each of the two black skid marks. There was approximately 12 inches in between each of the scrape marks, which were perpendicular to the runway centerline. One set of scrape marks was on the left side of the left skid mark. The second set of scrape marks was on the right side of the right skid mark. A third mark, located midpoint in between the two black skid marks, consisted of a skid mark, which was nearly covered by a white paint transfer. This mark ran parallel to the runway centerline. All three skid marks faded as they continued down the length of the runway. The accident aircraft was painted white. The mechanic who examined the airplane after the accident stated that there was no evidence of a mechanical gear failure. Flight control and flap continuity were also checked with no anomalies noted. The flaps were examined, and found to be in the up position, consistent with the flap selector position. The flaps were not damaged. The mechanic noted that the flaps are normally damaged if they are in the down position and the gear collapses. The pilot told the mechanic that he was not sure if he had put the flaps down during the approach.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's excessive approach speed and misjudged landing flare, which resulted in a hard landing and collapse of the landing gear. A factor in the accident was the pilot's failure to use

flaps.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) FLAPS - NOT USED - PILOT IN COMMAND
2. (C) AIRSPEED - EXCESSIVE - PILOT IN COMMAND
3. (C) FLARE - MISJUDGED - PILOT IN COMMAND

Occurrence #2: COMPLETE GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

4. LANDING GEAR - OVERLOAD

Factual Information

On June 1, 2003, about 1500 Pacific daylight time, a Beech 58, N18142, a twin-engine airplane, sustained substantial damage during a hard landing at Big Bear City Airport (L35), Big Bear City, California. The pilot/owner was operating the airplane under the provisions of 14 CFR Part 91. The commercial pilot and two passengers were not injured. The personal cross-country flight departed Catalina Airport (AVX), Avalon, California, en route to L35 at 1415. Visual meteorological conditions prevailed, and a flight plan had not been filed.

According to the pilot, the approach was normal. As he touched down, it felt like the nose gear was in a rut. He immediately pulled back on the yoke and the airplane became airborne. As it touched down a second time, the nose gear collapsed, and the airplane skidded down the runway to a stop. He examined the runway and found a rut that ran the length of the runway.

A witness told a Federal Aviation Administration (FAA) inspector that the airplane appeared to oscillate on final approach, made a hard landing, and porpoised down the runway. The Big Bear City Airport Director, also a witness to the accident, stated that the airplane was approaching "too hot" and began to touch down. It touched down three separate times due to its high approach speed. On the third touchdown, the airplane's landing gear collapsed and the airplane slid to a stop.

During a telephone interview with the National Transportation Safety Board investigator-in-charge (IIC), the Big Bear City Airport Manager stated that there were several significant cracks on the runway, which develop each winter. Some of the cracks had just recently been filled in. The Airport Manager took pictures of the runway after the accident.

Photographs received by the IIC displayed a noticeable crack running the length of the runway, left of the centerline. Significant markings were located approximately midpoint down the runway. Two parallel black skid marks with irregular zigzag patterns, exhibiting heavy tread markings, were also visible left of the centerline. These skid marks were about 6 feet apart and parallel to the runway centerline. The left skid mark was located about 6 inches left of the crack. The right skid mark was located about 5 feet to the right of the crack. There were two sets of six thin scrape marks dimensionally similar to propeller slashes in the runway surface located adjacent to each of the two black skid marks. There was approximately 12 inches in between each of the scrape marks, which were perpendicular to the runway centerline. One set of scrape marks was on the left side of the left skid mark. The second set of scrape marks was on the right side of the right skid mark. A third mark, located midpoint in between the two black skid marks, consisted of a skid mark, which was nearly covered by white paint transfer. This mark ran parallel to the runway centerline. All three skid marks fade as they continue down the length of the runway. The accident aircraft was painted white.

During a telephone interview with the IIC, the mechanic who examined the airplane stated that there was no evidence of a mechanical gear failure. Flight control and flap continuity were also checked with no anomalies noted. During the inspection he noticed that the flaps were in the up position, consistent with the flap selector position. The flaps were not damaged. The mechanic noted that the flaps normally are damaged if they are in the down position and the gear collapses. The pilot told the mechanic that he was not sure if he had put the flaps down during the approach.

Pilot Information

Certificate:	Private	Age:	42, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	05/06/2003
Occupational Pilot:		Last Flight Review or Equivalent:	03/03/2003
Flight Time:	345 hours (Total, all aircraft), 65 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N18142
Model/Series:	58	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	TH-1270
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	10/18/2002, Annual	Certified Max Gross Wt.:	5700 lbs
Time Since Last Inspection:	67 Hours	Engines:	2 Reciprocating
Airframe Total Time:	3950 Hours as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-520
Registered Owner:	S W Retail Inc.	Rated Power:	285 hp
Operator:	S W Retail Inc.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	L35, 6748 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1500 PDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	7 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	27° C / -1° C
Precipitation and Obscuration:			
Departure Point:	Avalon, CA (AVX)	Type of Flight Plan Filed:	None
Destination:	Big Bear City, CA (L35)	Type of Clearance:	None
Departure Time:	1400 PDT	Type of Airspace:	Class E

Airport Information

Airport:	Big Bear City Airport (L35)	Runway Surface Type:	Asphalt
Airport Elevation:	6748 ft	Runway Surface Condition:	Dry; Rough
Runway Used:	08	IFR Approach:	None
Runway Length/Width:	5850 ft / 75 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	34.263611, -116.854444

Administrative Information

Investigator In Charge (IIC):	Jeff Rich	Report Date:	09/01/2004
Additional Participating Persons:	Jim Coughren; Federal Aviation Administration; Riverside, CA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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