



Aviation Investigation Final Report

Location:	PLACERVILLE, California	Accident Number:	LAX93LA205
Date & Time:	May 9, 1993, 10:20 Local	Registration:	N2171C
Aircraft:	CESSNA 195B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE AIRPLANE EXITED THE RUNWAY AND SUBSEQUENTLY STRUCK A TREE DURING THE LANDING ROLL AT AN UNCONTROLLED AIRPORT. EXAMINATION OF THE WRECKAGE DISCLOSED THAT THE LEFT BRAKE WAS INTACT AND OPERATED NORMALLY. THE RIGHT BRAKE LINE SEVERED DURING THE IMPACT SEQUENCE, BUT THE BRAKE HOUSING APPEARED NORMAL. THERE WAS NO EVIDENCE OF ANY EXTERNAL HYDRAULIC FLUID LEAKS EMANATING FROM THE RIGHT WHEEL MASTER CYLINDER. THE A & P MECHANIC WHO EXAMINED THE AIRPLANE SAID HE SUSPECTED THAT THE RIGHT WHEEL MASTER CYLINDER WAS LEAKING DUE TO A WORN LOCK O-RING SEAL

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE UNRELIABILITY OF THE NORMAL BRAKE SYSTEM AND THE LEAKING MASTER CYLINDER

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - UNRELIABLE
2. (C) FLUID,HYDRAULIC - LEAK

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

3. OBJECT - TREE(S)

Factual Information

On May 9, 1993, at about 1020 hours Pacific daylight time, a Cessna 195, N2171C, ran off the runway during the landing roll and collided with a tree at Swansboro Airport, Placerville, California. The pilot was completing a local area visual flight rules personal flight. The airplane, owned and operated by the pilot, sustained substantial damage. The certificated airline transport pilot, the sole occupant, was not injured. Visual meteorological conditions prevailed. The flight originated at Swansboro Airport at about 0812 hours.

The pilot stated in the pilot/operator report that he entered the Swansboro Airport traffic pattern to land on runway 090. He said that the initial rollout was normal, and then "a slight turn to the right was corrected for...then rudder and finally brake was applied to stop the movement to the left...it was then apparent full rudder, brake and up elevator was not working." The aircraft left the runway as he applied full braking. The left wing struck a pine tree which spun the aircraft into more brush, trees, and a dirt bank which runs parallel to the runway.

The pilot said he suspected a weak right brake because of the leaking wheel cylinder and the fluid found on the brake after the accident. In the written pilot/operator report, the pilot said the right side main landing gear collapsed and that the gear box area was "badly damaged."

The airplane was examined by an aircraft mechanic with airplane and powerplant ratings under the guidance of the Federal Aviation Administration on June 15, 1993. The mechanic told Safety Board investigators in a telephone conversation on June 17, 1993, that after examining the airplane, the left brake appeared to be operational. The brake pucks were in good condition and the brake housing was free and moved back and forth. He reported that the left brake appeared "good and hard" when he pushed on the brake pedal.

The mechanic reported that the right brake housing "looked good." The right brake line was broken from impact damage. The mechanic did not find any fluid leaking from the wheel cylinder.

The mechanic told Safety Board investigators that he "suspected the lock O ring seal had gone bad in the master cylinder." The mechanic was unable to disassemble the master cylinder.

Pilot Information

Certificate:	Airline transport	Age:	63, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 24, 1993
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	22000 hours (Total, all aircraft), 6 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2171C
Model/Series:	195B 195B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	16156
Landing Gear Type:	Tailwheel	Seats:	5
Date/Type of Last Inspection:	May 9, 1992 Annual	Certified Max Gross Wt.:	3350 lbs
Time Since Last Inspection:	8 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6700 Hrs	Engine Manufacturer:	JACOBS
ELT:	Installed, not activated	Engine Model/Series:	R-755A2
Registered Owner:	KENNETH OR THELMA KINNE	Rated Power:	300 Horsepower
Operator:	KENNETH OR THELMA KINNE	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MHR ,96 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	09:55 Local	Direction from Accident Site:	45°
Lowest Cloud Condition:	Clear	Visibility	60 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	1 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	21°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CAMERON PARK , CA (061)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	09:19 Local	Type of Airspace:	Class G

Airport Information

Airport:	SWANSBORO AIRPORT	Runway Surface Type:	Asphalt
Airport Elevation:	2594 ft msl	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	3100 ft / 60 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	38.73019,-120.799064(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Debbie
Additional Participating Persons:	JIM KELLY; SACRAMENTO , CA
Original Publish Date:	November 15, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=28375

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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](#).