



Aviation Investigation Final Report

Location:	MINOCQUA, Wisconsin	Accident Number:	CHI96LA070
Date & Time:	December 29, 1995, 17:31 Local	Registration:	N68300
Aircraft:	CESSNA 310R	Aircraft Damage:	Substantial
Defining Event:		Injuries:	5 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT REPORTED THAT WHILE DESCENDING AND BEING VECTORED ON THE LOCALIZER APPROACH, THE AIRPLANE ACCUMULATED MIXED BUT MOSTLY CLEAR ICE. HE EXECUTED A MISSED APPROACH, SUBJECTING THE AIRPLANE TO 'EXTENDED EXPOSURE TO ICE CONDITIONS.' ON HIS NEXT APPROACH, THE PILOT STATED THAT HE EXPERIENCED 'DETERIORATION OF PERFORMANCE RESULTING IN A NEAR GROUND STALL AND HARD LANDING.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain adequate airspeed during the landing. The weather and ice accumulation on the airplane were factors.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. (F) WING - ICE
3. (C) AIRSPEED - INADEQUATE - PILOT IN COMMAND
4. STALL/MUSH - INADVERTENT - PILOT IN COMMAND

Factual Information

On December 29, 1995, at 1731 central standard time (cst), a Cessna 310R, N68300, operated by a private pilot, sustained substantial damage during a hard landing. Instrument meteorological conditions prevailed at the time of the accident. The flight was being conducted under 14 CFR Part 91. An instrument flight plan was on file. The pilot reported no injuries to himself or the three passengers on board. The flight originated at Madison, Wisconsin, at 1600 cst.

In his written statement, the pilot reported that "while descending, being vectored and on the localizer approach for runway 36" at Noble Lee/Lakeland Airport, Minocqua, Wisconsin, "mixed, but mostly clear ice accumulated on the airplane." The pilot executed a missed approach which subjected the airplane to "extended exposure to ice conditions." On his next approach, the pilot stated that he experienced "deterioration of performance resulting in a near ground stall and hard landing."

The pilot received a weather briefing from the Flight Service Station at Green Bay, Wisconsin, at 1530 cst. No reports of icing or forecast icing conditions for his route of flight were contained in that briefing.

A Federal Aviation Administration inspector examined the airplane at Noble Lee/Lakeland Airport on January 2, 1996. He found the front carry-through spar on the right wing bent slightly rearward. There was damage to the right propeller and skin wrinkles to the right side of the fuselage just aft of the passenger window, and to the underside of the right wing from the wing root to the right engine locker. Examination of the engines, engine controls, flight controls and other airplane systems showed no anomalies.

Pilot Information

Certificate:	Private	Age:	41, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
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:	November 9, 1995
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	980 hours (Total, all aircraft), 540 hours (Total, this make and model), 890 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N68300
Model/Series:	310R 310R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2108
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	November 30, 1995 Annual	Certified Max Gross Wt.:	5650 lbs
Time Since Last Inspection:	20 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	5160 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	IO-520-MB
Registered Owner:	START RENTING, INC.	Rated Power:	265 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	ARV ,1628 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	16:59 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown	Visibility	3 miles
Lowest Ceiling:	Overcast / 600 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-12°C / -16°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	MADISON , WI (MSN)	Type of Flight Plan Filed:	IFR
Destination:	(ARV)	Type of Clearance:	IFR
Departure Time:	16:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	NOBLE LEE/LAKELAND ARV	Runway Surface Type:	Asphalt
Airport Elevation:	1628 ft msl	Runway Surface Condition:	Snow
Runway Used:	36	IFR Approach:	Localizer only
Runway Length/Width:	5150 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	45.85963,-89.69065(est)

Administrative Information

Investigator In Charge (IIC):	Bowling, David
Additional Participating Persons:	J. D MARTIN; MILWAUKEE , WI
Original Publish Date:	August 20, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=10181

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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](#).