



Aviation Investigation Final Report

Location:	TAHLEQUAH, Oklahoma	Accident Number:	FTW98LA397
Date & Time:	September 12, 1998, 11:00 Local	Registration:	N8548K
Aircraft:	Stinson 108-1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot lost control of the airplane during takeoff from runway 17 when a gust of wind pitched the airplane to a 25-30 degrees nose up attitude and rolled the airplane right. The pilot lowered the nose of the aircraft; however, the airplane drifted to the right side of the runway where it impacted the ground with the right wing and subsequently came to rest inverted. The nearest weather observation facility is located at Davis Field near Muskogee, Oklahoma, which is 23 nautical miles southwest of Tahlequah Municipal Airport. At 0953 the facility recorded the winds at 110 degrees at 14 knots, gusting to 23 knots. A witness stated that he saw 'dust devils' in the vicinity of the airport at the time of the accident.

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 directional control of the aircraft during takeoff. A factor was the gusty wind conditions at the time of the accident.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - GUSTS

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On September 12, 1998, at 1100 central daylight time, a Stinson 108-1 tail-wheel equipped airplane, N8548K, was substantially damaged upon impact with the ground during takeoff from the Tahlequah Municipal Airport near Tahlequah, Oklahoma. The non-instrument rated commercial pilot, who was the owner of the airplane, was not injured. Visual meteorological conditions prevailed and a flight plan was not filed for the Title 14 CFR Part 91 flight destined for Okemah, Oklahoma.

During a telephone interview, conducted by the investigator-in-charge, the pilot stated that an annual inspection had just been completed on the airplane and he planned to fly the airplane back to its home base. The pilot stated that the run-up and systems check were normal.

The pilot stated that during the takeoff roll from runway 17, approximately at rotation speed, a "gust of wind pitched the nose up 25-30 degrees and raised the left wing." The pilot lowered the nose but the airplane drifted to the right side of the runway where it impacted the ground with the right wing, rolled over to the right, impacted the left wing and came to rest inverted.

Examination of the aircraft by the FAA inspector revealed no anomalies in the flight control system. The FAA inspector confirmed that the vertical stabilizer and wing spars were bent and the right wing lift strut was broken.

The FAA inspector interviewed a witness that stated he saw "dust devils" in the vicinity of the airport at the time of the accident.

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Pilot Information

Certificate:	Commercial	Age:	71, 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-w/ waivers/lim	Last FAA Medical Exam:	August 22, 1996
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1211 hours (Total, all aircraft), 70 hours (Total, this make and model), 4 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	Registration:	N8548K
Model/Series:	108-1 108-1	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1548
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	September 9, 1998 Annual	Certified Max Gross Wt.:	2230 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2916 Hrs	Engine Manufacturer:	Franklin
ELT:	Installed, activated	Engine Model/Series:	6A4150 B-3
Registered Owner:	HERBERT RAKESTRAW	Rated Power:	150 Horsepower
Operator:		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:	MKO	Distance from Accident Site:	23 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	225°
Lowest Cloud Condition:	Scattered / 3200 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	14 knots / 23 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	27°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(H73)	Type of Flight Plan Filed:	None
Destination:	OKEMAH , OK (F81)	Type of Clearance:	None
Departure Time:	11:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	TAHLEQUAH H73	Runway Surface Type:	Asphalt
Airport Elevation:	873 ft msl	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	None

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:	35.91085,-94.970954(est)

Administrative Information

Investigator In Charge (IIC):	Lupino, Nicole
Additional Participating Persons:	DON COOK; OKLAHOMA CITY , OK
Original Publish Date:	February 16, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=43918

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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](#).