

# **Aviation Investigation Final Report**

Location: Hector, Minnesota Accident Number: CEN13CA412

Date & Time: July 14, 2013, 18:15 Local Registration: N855F

Aircraft: UNIVERSAL STINSON 108-1 Aircraft Damage: Substantial

**Defining Event:** Loss of control on ground **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

## **Analysis**

During the takeoff roll, at about 50 knots, the airplane began to drift to the left. The pilot stated that as the airplane drifted to the left, she inadvertently tapped on the right brake, and then released the brake while adding right ailerons inputs. Corrections were made to maneuver the airplane back to the runway centerline. The right wingtip was lowered and impacted the ground 2 or 3 times. She continued to apply inputs to the right rudder pedal. The airplane nosed-over and sustained substantial damage to both wing spars and the vertical stabilizer. The second pilot stated that he didn't know why the airplane responded as it did and was unsure if there were any malfunctions with the airplane prior to the accident. He estimated the wind to be from the left at 5 knots. A postaccident examination of the airplane by a Federal Aviation Administration inspector revealed no evidence of preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. As the pilot was making continuous rudder pedal inputs, it is likely that she inadvertently applied the brakes.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadvertent application of the brakes and failure to main directional control of the airplane during the takeoff roll, which resulted in the airplane nosing over.

# Findings

Personnel issues

Incorrect action performance - Pilot

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# **Factual Information**

# **History of Flight**

Takeoff Loss of control on ground (Defining event)	
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#### **Pilot Information**

Certificate:	Private	Age:	28,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	November 23, 2009
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 29, 2012
Flight Time:	83 hours (Total, all aircraft), 0 hours (Total, this make and model), 25 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## **Co-pilot Information**

Certificate:	Airline transport; Commercial	Age:	72,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	April 22, 2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 19, 2012
Flight Time:	14925 hours (Total, all aircraft), 127 hours (Total, this make and model), 8000 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	UNIVERSAL STINSON	Registration:	N855F
Model/Series:	108-1	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	108-1519
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	May 15, 2013 Annual	Certified Max Gross Wt.:	2230 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2232 Hrs as of last inspection	Engine Manufacturer:	FRANKLIN
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	6A4150 SERIES
Registered Owner:	Mark S Erickson	Rated Power:	150 Horsepower
Operator:	Mark S Erickson	Operating Certificate(s) Held:	None

# Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KOVL,1076 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	16:14 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Thin Overcast / 7000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Overcast / 7000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	23°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Eden Praire, MN (KFCM)	Type of Flight Plan Filed:	None
Destination:	Hector, MN (1D6)	Type of Clearance:	None
Departure Time:	17:30 Local	Type of Airspace:	

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# **Airport Information**

Airport:	Hector Municipal Airport 1D6	Runway Surface Type:	Grass/turf
Airport Elevation:	1077 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	2580 ft / 165 ft	VFR Approach/Landing:	None

# 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:	44.731109,-94.714721(est)

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#### **Administrative Information**

Investigator In Charge (IIC):	Lindberg, Joshua
Additional Participating Persons:	Kevin Morris; Federal Aviation Administration; Minneapolis, MN
Original Publish Date:	August 13, 2013
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=87480

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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.

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