



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Millington, Tennessee	Accident Number:	ATL05CA059
Date & Time:	March 6, 2005, 17:20 Local	Registration:	N74EK
Aircraft:	Ecker Starduster 1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

According to the pilot, during the landing rollout on the grassy area on the left side adjacent to runway 17, the airplane began to veer to the left. The pilot said full right rudder was applied to stop the left turn, but as the airplane decelerated the right rudder input was ineffective. The pilot decided to apply right brake to stop the left turn, however when right brake was applied the airplane nosed over. The pilot reported no flight control or mechanical anomalies with the airplane. Examination of the airplane revealed the upper left wingtip, and vertical stabilizer were buckled. Examination of the left wheel pant revealed clumps of wet grass were present between the pant and wheel. During further examination of the left wheel it was revealed that the left brake caliper was hanging on the rotor and restricting movement. The history of the brake system and maintenance records were not available for review. A review of the General Dewitt Spain Airport map revealed that there is no published grass landing strip for the airport. During a telephone interview with the pilot, he stated that the grass-landing surface he landed on was adjacent to the runway, and although it was being used as a landing strip it was not a designated landing area.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The malfunction of the left main landing gear wheel brake during landing roll on a grassy area, resulting in a nose over.

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

1. TERRAIN CONDITION - GROUND

Occurrence #2: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

2. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - MALFUNCTION

Factual Information

On March 6, 2005, at 1720 central standard time, an experimental Ecker Starduster 1, N74EK, register to and operated by a private pilot, nosed over during landing roll at General Dewitt Spain Airport, Millington, Tennessee. The personal flight was conducted under the provision of Title 14 CFR Part 91 with no flight plan filed. Visual meteorological conditions prevailed at the time of the accident. The airplane was substantially damaged and the pilot was uninjured. The flight departed from West Memphis Municipal Airport, Arkansas on March 6, 2005 at 1700.

According to the pilot, during landing rollout on the grassy area on the left side adjacent to runway 17, the airplane began to veer to the left. The pilot said full right rudder was applied to stop the left turn, but as the airplane decelerated the right rudder input was ineffective. The pilot decided to applied right brake to stop the left turn, however when right brake was applied the airplane nosed over. The pilot reported no flight control or mechanical anomalies with the airplane.

Examination of the airplane revealed the upper left wingtip, and vertical stabilizer was buckled. Examination of the left wheel pant revealed clumps of wet grass were present between the pant and wheel. During further examination of the left wheel it was revealed that the left brake caliper was hanging on the rotor and restricting movement. The history of the brake system and maintenance records were not available for review. A review of the General Dewitt Spain Airport map revealed that there is no published grass landing strip for the airport.

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Pilot Information

Certificate:	Commercial	Age:	61,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Single
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 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 18, 2004
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	6000 hours (Total, all aircraft), 44 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ecker	Registration:	N74EK
Model/Series:	Starduster 1	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	174
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	April 8, 2004 Condition	Certified Max Gross Wt.:	879 lbs
Time Since Last Inspection:	127 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	127 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-290
Registered Owner:	Steve Price	Rated Power:	125 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	NQA,320 ft msl	Distance from Accident Site:	50 Nautical Miles
Observation Time:	11:56 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.25 inches Hg	Temperature/Dew Point:	9°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Memphis, AK (AWM)	Type of Flight Plan Filed:	VFR
Destination:	Millington , TN (M01)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	GENERAL DEWITT SPAIN AIRPORT M01	Runway Surface Type:	Grass/turf
Airport Elevation:	244 ft msl	Runway Surface Condition:	Wet
Runway Used:	17	IFR Approach:	None
Runway Length/Width:		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:	35.203334,-90.238609

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Dennise Roesti; Memphis FSDO; Memphis, TN
Original Publish Date:	June 28, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=61243

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