



Aviation Investigation Final Report

Location:	Mooresville, North Carolina	Accident Number:	ERA12CA215
Date & Time:	March 6, 2012, 17:15 Local	Registration:	N5693C
Aircraft:	Cessna 140A	Aircraft Damage:	Substantial
Defining Event:	Flight control sys malf/fail	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the landing roll, the left rudder pedal suddenly "went slack" and moved forward to the firewall. He was unable to use the wheel brakes, and the tail slowly yawed to the left. The airplane skidded, the main landing gear failed, and the airplane came to a stop on the turf runway with substantial damage to the left wing and fuselage. Postaccident examination revealed that the left rudder cable turnbuckle was disconnected and its safety wire was broken. The threads of the cable rod end were not stripped. The last annual inspection on the airframe was completed about 5 months before the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The separation of the left rudder cable turnbuckle and the pilot's subsequent loss of directional control during landing.

Findings

Aircraft	Rudder control system - Malfunction
Aircraft	Directional control - Attain/maintain not possible
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-landing roll	Flight control sys malf/fail (Defining event)
Landing-landing roll	Loss of control on ground
Landing-landing roll	Landing gear collapse

Pilot Information

Certificate:	Private	Age:	63, Male
Airplane Rating(s):	Single-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 3 With waivers/limitations	Last FAA Medical Exam:	September 14, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 24, 2010
Flight Time:	3300 hours (Total, all aircraft), 600 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5693C
Model/Series:	140A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	15653
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	September 30, 2011 Annual	Certified Max Gross Wt.:	1450 lbs
Time Since Last Inspection:	40 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1853 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	C90 SERIES
Registered Owner:	GROSS THOMAS E	Rated Power:	90 Horsepower
Operator:	GROSS THOMAS E	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SVH,968 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	12:15 Local	Direction from Accident Site:	310°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.62 inches Hg	Temperature/Dew Point:	7°C / -6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mooresville, NC (NC30)	Type of Flight Plan Filed:	None
Destination:	Mooresville, NC (NC30)	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	

Airport Information

Airport:	Miller Air Park NC30	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2060 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

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:	35.608333,-80.738052(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Mitzi Crouse; FAA/FSDO; Charlotte, NC
Original Publish Date:	October 15, 2012
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.ntsb.gov/Docket?ProjectID=83058

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