



# **Aviation Investigation Final Report**

Location: Salisbury, North Carolina Accident Number: GAA16CA081

Date & Time: November 28, 2015, 13:00 Local Registration: N2000R

Aircraft: Cessna 182 Aircraft Damage: Substantial

**Defining Event:** Hard landing **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Skydiving

#### **Analysis**

According to the pilot of the tricycle landing gear equipped airplane, he was performing skydiving operations. He reported that he felt rushed in performing his assigned duties because, "the skydiving school kept wanting me to return quicker for the next load." The pilot recalled that after dropping the sky divers, he made his approach to land; the airplane ballooned during the flare, and landed hard on all three landing gear. The airplane sustained substantial damage to the firewall.

The pilot reported that there were no mechanical failures or anomalies prior to or during the flight that would have prevented normal flight operation.

#### **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 pitch control during the landing flare, causing the airplane to balloon and land hard.

## Findings

Personnel issues Aircraft control - Pilot

Aircraft Landing flare - Incorrect use/operation

Aircraft Pitch control - Not attained/maintained

**Environmental issues** Time/schedule pressure - Effect on personnel

Page 2 of 6 GAA16CA081

### **Factual Information**

### History of Flight

Landing-flare/touchdown	Other weather encounter
Landing-flare/touchdown	Loss of lift
Landing-flare/touchdown	Hard landing (Defining event)

#### **Pilot Information**

Certificate:	Commercial; Flight engineer	Age:	49,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	August 10, 2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 19, 2015
Flight Time:	(Estimated) 406 hours (Total, all aircraft), 11 hours (Total, this make and model), 321 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Page 3 of 6 GAA16CA081

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

Aircraft Make:	Cessna	Registration:	N2000R
Model/Series:	182 G	Aircraft Category:	Airplane
Year of Manufacture:	1963	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18255200
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	November 6, 2015 100 hour	Certified Max Gross Wt.:	2348 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	6934 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, not activated	Engine Model/Series:	0-470-R
Registered Owner:	Piedmont Skydiving Center LLC	Rated Power:	230 Horsepower
Operator:	Piedmont Skydiving Center LLC	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KRUQ,773 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	17:55 Local	Direction from Accident Site:	54°
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.26 inches Hg	Temperature/Dew Point:	18°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Salisbury, NC (RUQ)	Type of Flight Plan Filed:	None
Destination:	Salisbury, NC (RUQ)	Type of Clearance:	VFR;Traffic advisory
Departure Time:		Type of Airspace:	Class G

Page 4 of 6 GAA16CA081

### **Airport Information**

Airport:	ROWAN COUNTY RUQ	Runway Surface Type:	Asphalt
Airport Elevation:	772 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	5501 ft / 100 ft	VFR Approach/Landing:	Stop and go

### 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:	35.645832,-80.520278(est)

Page 5 of 6 GAA16CA081

#### **Administrative Information**

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Steve Tucker; Federal Aviation Administration; Charlotte, NC
Original Publish Date:	April 5, 2016
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=92455

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.

Page 6 of 6 GAA16CA081