



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 | |

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) | | |

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° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 6 knots / None | 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 |

Airport Information

| Airport: | ROWAN COUNTY RUQ | Runway Surface Type: | Asphalt |
|----------------------|------------------|---------------------------|-------------|
| Airport Elevation: | 772 ft msl | Runway Surface Condition: | 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) |

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 | | |

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