



# National Transportation Safety Board Aviation Accident Data Summary

---

<b>Location:</b>	Sanford, FL	<b>Accident Number:</b>	ERA11LA221
<b>Date &amp; Time:</b>	04/01/2011, 1545 EDT	<b>Registration:</b>	N6781X
<b>Aircraft:</b>	CESSNA 310F	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

---

## Analysis

The flight instructor and private pilot were performing touch-and-go landings. While retracting the landing gear, they heard a loud bang. The gear-up light illuminated, indicating that all three landing gears were retracted and the doors were closed. The instructor concluded that the noise came from the landing gear doors closing into each other. The flight continued, and two more landings were planned: one touch-and-go and one full stop. The landing gear appeared to operate normally during the touch-and-go. Upon extending the gear for the full stop landing, the gear-down light failed to illuminate. After checking the gear down indicating system, a visual check with the tower controllers confirmed that all three landing gears were in the down position. During touchdown, the nose gear collapsed. A postaccident examination of the nose gear assembly revealed that the nose landing gear strut reservoir lacked air pressure and the fluid level was very low. This underserviced condition caused binding in the nose gear fork assembly and failure of a nose gear push rod, which prevented the nose gear from extending to the full down and locked position.

## Flight Events

Landing-landing roll - Landing gear collapse

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:  
The failure of the nose landing gear due to inadequate servicing of the nose gear strut reservoir.

## Findings

Aircraft-Aircraft systems-Landing gear system-Nose/tail gear strut/axle-Incorrect service/maintenance - C

Aircraft-Aircraft systems-Landing gear system-Gear extension and retract sys-Failure - C

Personnel issues-Task performance-Maintenance-Scheduled/routine maintenance-Other/unknown - C

## Flight Instructor Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	43
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
<b>Flight Time:</b>	2400 hours (Total, all aircraft), 300 hours (Total, this make and model), 1965 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	CESSNA	<b>Registration:</b>	N6781X
<b>Model/Series:</b>	310F	<b>Engines:</b>	2 Reciprocating
<b>Operator:</b>	Edward Moon	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	I0-470 SERIES
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	SFB, 55 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	None
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	11 knots/ 19 knots, 290°
<b>Temperature:</b>	26°C / 8°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sanford, FL (SFB)	<b>Destination:</b>	Sanford, FL (SFB)

## Airport Information

<b>Airport:</b>	Orlando Sanford International (SFB)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	27	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	9601 ft / 150 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

## Administrative Information

Investigator In Charge (IIC): Eric Alleyne

Adopted Date: 08/15/2012

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78739>

---

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.