



# Aviation Investigation Final Report

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<b>Location:</b>	BOISE, Idaho	<b>Accident Number:</b>	SEA83LA177
<b>Date &amp; Time:</b>	August 13, 1983, 18:34 Local	<b>Registration:</b>	N4772Q
<b>Aircraft:</b>	CESSNA 185E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

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## Analysis

THE ACFT LANDED IN A NEAR MAXIMUM VELOCITY CROSSWIND AND WHILE BRAKING TO CONTROL/CORRECT A SWERVE, THE RIGHT MAIN LANDING GEAR SEPARATED FROM THE ACFT. THE LANDING WAS ON RWY 28R AND THE WIND WAS FROM 200 DEGREES AT 10 TO 14 KTS ON FINAL AND 12 KTS WHEN THE PILOT WAS OVER THE THRESHOLD. THE ACFT TOUCHED DOWN ON THE LEFT WHEEL AND BOUNCED A LITTLE. IT TOUCHED DOWN AGAIN ON THE LEFT GEAR AND THE PILOT RAISED THE TAIL. THE RIGHT MAIN CAME DOWN WITH THE TAIL STILL IN THE AIR. AT ABOUT 40 MPH THE TAIL WAS LOWERED AND THE ACFT STARTED A LEFT TURN. THE PILOT CORRECTED WITH FULL RUDDER AND RIGHT BRAKING. THE PILOT DETECTED A SINKING ON THE RIGHT SIDE AND THEN THE RIGHT STRUT COLLAPSED. WHEN HE DEPLANED THE PILOT DISCOVERED THE RIGHT GEAR HAD SEPARATED. THE MAXIMUM DEMONSTRATED CROSSWIND VELOCITY FOR THIS AIRCRAFT (CESSNA 185) IS 15 KTS. METALLURGICAL TESTS WERE PERFORMED ON THE RIGHT WHEEL SPINDLE ATTACHING NUTS AND BOLTS WHICH SHOWED THAT THE REAR BOLTS FAILED AT THE INTERFACE OF SPINDLE AND STRUT DUE TO TENSILE OVERLOAD.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (F) WEATHER CONDITION - CROSSWIND
  2. (C) FLARE - MISJUDGED - PILOT IN COMMAND
  3. (C) GROUND LOOP/SWERVE - PERFORMED - PILOT IN COMMAND
  4. (C) BRAKES(NORMAL) - EXCESSIVE - PILOT IN COMMAND
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Occurrence #2: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

### Findings

5. (F) LANDING GEAR,MAIN GEAR - SEPARATION
6. (F) LANDING GEAR,MAIN GEAR STRUT - FAILURE,TOTAL
7. (F) LANDING GEAR,MAIN GEAR - OVERLOAD
8. (F) LANDING GEAR,MAIN GEAR STRUT - OVERLOAD

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 24, 1983
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1164 hours (Total, all aircraft), 55 hours (Total, this make and model), 987 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N4772Q
<b>Model/Series:</b>	185E 185E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	185-1239
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	100 hour	<b>Certified Max Gross Wt.:</b>	3300 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-470-R
<b>Registered Owner:</b>	MOUNTAIN BIRD, INCORPORATED	<b>Rated Power:</b>	230 Horsepower
<b>Operator:</b>	SALMON AIR TAXI	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BOI ,2858 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	18:50 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 6000 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	Broken / 14000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	28°C / 9°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	MCCALL , ID (MYL )	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>	BOISE , ID (BOI )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:45 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	BOISE AIR TERMINAL BOI	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	2858 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	28R	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7400 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	

## Administrative Information

**Investigator In Charge (IIC):** Carrera, Candace

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=39754>

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