



# Aviation Investigation Final Report

<b>Location:</b>	Miami, Florida	<b>Accident Number:</b>	ERA23LA259
<b>Date &amp; Time:</b>	May 30, 2023, 10:07 Local	<b>Registration:</b>	N2447B
<b>Aircraft:</b>	Cessna 172	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Abnormal runway contact	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The student pilot was conducting his first solo flight and the airplane was high on the final leg of the approach to land. He attempted to correct by reducing the engine power to idle. When he initiated the landing flare, the airplane bounced on initial touchdown and then porpoised on the runway. The underside of the fuselage sustained substantial damage during the landing. The pilot reported that there were no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation.

## Probable Cause and Findings

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

The pilot's improper landing flare, which resulted in substantial damage the airplane's fuselage.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Landing flare - Not attained/maintained

## Factual Information

### History of Flight

<b>Landing-flare/touchdown</b>	Abnormal runway contact (Defining event)
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### Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	22, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	April 18, 2023
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	30.8 hours (Total, all aircraft), 30.8 hours (Total, this make and model), 30.8 hours (Last 90 days, all aircraft), 30.8 hours (Last 30 days, all aircraft), 1.8 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N2447B
<b>Model/Series:</b>	172 R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1999	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17280801
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 21, 2023 100 hour	<b>Certified Max Gross Wt.:</b>	2450 lbs
<b>Time Since Last Inspection:</b>	66.9 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	12068.4 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	IO-360-L2A
<b>Registered Owner:</b>	SILVER EXPRESS CO	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	SILVER EXPRESS CO	<b>Operating Certificate(s) Held:</b>	Pilot school (141)
<b>Operator Does Business As:</b>	Flying Academy	<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>	TMB,6 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	09:53 Local	<b>Direction from Accident Site:</b>	191°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.88 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 23°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Miami, FL	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Miami, FL	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	MIAMI EXEC TMB	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	10 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	9L	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5003 ft / 150 ft	<b>VFR Approach/Landing:</b>	Touch and go;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 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
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	25.652919,-80.437958(est)

## Administrative Information

**Investigator In Charge (IIC):** Spencer, Lynn

**Additional Participating Persons:** Gordon Morris; FAA/FSDO; Miramar, FL

**Original Publish Date:** July 7, 2023

**Last Revision Date:**

**Investigation Class:** [Class 4](#)

**Note:** The NTSB did not travel to the scene of this accident.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=192325>

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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](#).