



Aviation Investigation Final Report

Location:	South Portland, Maine	Accident Number:	ERA22LA303
Date & Time:	July 8, 2022, 15:35 Local	Registration:	N9946Q
Aircraft:	Cessna 172M	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot had previously accumulated about 40 total hours of flight experience, but the accident flight with the flight instructor was his first after having not flown for about six years. During the first approach to landing, the flight instructor directed the student to perform a touch-and-go landing. The student pilot stated that he felt “nervous” given the amount of time that had elapsed since he had last flown. The student thought that he subsequently landed the airplane hard and recalled hearing the sound of “crunching metal.” His next recollection was waking up on the runway as the airplane caught fire. The student pilot and the flight instructor were seriously injured and the airplane’s fuselage was substantially damaged during the landing and subsequent postimpact fire. Despite several attempts to contact him, the flight instructor could not be reached following the accident and did not provide a statement about the accident.

Probable Cause and Findings

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

The student pilot’s improper landing flare, which resulted in a hard landing. Also causal was the flight instructor’s inadequate remedial action.

Findings

Personnel issues	Aircraft control - Student/instructed pilot
Aircraft	Landing flare - Not attained/maintained
Personnel issues	Lack of action - Instructor/check pilot

Factual Information

History of Flight

Landing	Hard landing (Defining event)
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Flight instructor Information

Certificate:		Age:	56,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	March 1, 2022
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	9800 hours (Total, all aircraft), 99999 hours (Total, this make and model)		

Student pilot Information

Certificate:	None	Age:	70,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 30, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 40 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N9946Q
Model/Series:	172M	Aircraft Category:	Airplane
Year of Manufacture:	1975	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17265890
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Unknown
Airframe Total Time:		Engine Manufacturer:	Unknown
ELT:		Engine Model/Series:	
Registered Owner:	HORIZON AVIATION LLC	Rated Power:	
Operator:	Portland Flight Services	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPWM, 44 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:51 Local	Direction from Accident Site:	147°
Lowest Cloud Condition:	Few / 9500 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	24°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	South Portland, ME	Type of Flight Plan Filed:	None
Destination:	South Portland, ME	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class C

Airport Information

Airport:	PORTLAND INTL JETPORT PWM	Runway Surface Type:	Asphalt
Airport Elevation:	75 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	6100 ft / 150 ft	VFR Approach/Landing:	Touch and go

Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	43.644046,-70.30587(est)

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Josh Trickey; FAA; Portland, ME
Original Publish Date:	November 3, 2022
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=105440

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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](#).