



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Oklahoma City, Oklahoma	Accident Number:	CEN23LA148
Date & Time:	March 27, 2023, 12:26 Local	Registration:	N550DW
Aircraft:	Cessna 550	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The pilot reported that he had recently completed his initial training, and the accident flight was his first flight in the airplane. The pilot entered the traffic pattern with the autopilot engaged and was told by the co-pilot to “keep it tight.” The autopilot did not command a steep enough bank, and the pilot disconnected the autopilot in an attempt to align with the runway centerline. On final approach about 50 ft above ground level (agl), the airplane was aligned to the right of the runway centerline. The airplane landed hard, bounced multiple times, exited the runway, and impacted a runway sign. The pilot then executed a go-around and landed without further incident at an alternate airport. The airplane sustained substantial damage to the right wing spar. The pilot reported that there were no preimpact mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The pilot reported that prior to and during the flight, challenge-response checklist reading was not utilized between he and the co-pilot, and callouts were not used below 1,000 ft agl.

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 a hard, bounced landing, runway excursion, and subsequent collision with a runway sign. Contributing to the accident was the pilot’s lack of experience in the airplane, the unstabilized approach, and inadequate crew resource management.

Findings

Aircraft	Landing flare - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Personnel issues	Total experience w/ equipment - Pilot
Personnel issues	CRM/MRM techniques - Flight crew
Personnel issues	Delayed action - Flight crew
Environmental issues	Sign/marker - Contributed to outcome

Factual Information

History of Flight

Landing	Hard landing (Defining event)
Landing	Runway excursion
Landing-aborted after touchdown	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer; Flight instructor	Age:	63,
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	October 28, 2022
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	13302 hours (Total, all aircraft), 3 hours (Total, this make and model), 3 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Co-pilot Information

Certificate:	Commercial	Age:	36,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	Class 2	Last FAA Medical Exam:	June 1, 2022
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1986.1 hours (Total, all aircraft), 50 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N550DW
Model/Series:	550	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	550-0487
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:		Engine Manufacturer:	Pratt and Whitney
ELT:		Engine Model/Series:	
Registered Owner:	XCEED MANAGEMENT GROUP LLC	Rated Power:	
Operator:	XCEED MANAGEMENT GROUP LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPWA, 1280 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	11:53 Local	Direction from Accident Site:	353°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.18 inches Hg	Temperature/Dew Point:	8°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pella, IA (KPEA)	Type of Flight Plan Filed:	IFR
Destination:	Oklahoma City, OK (KPWA)	Type of Clearance:	IFR
Departure Time:	10:30 Local	Type of Airspace:	Class D

Airport Information

Airport:	WILEY POST PWA	Runway Surface Type:	Asphalt
Airport Elevation:	1299 ft msl	Runway Surface Condition:	
Runway Used:	35R	IFR Approach:	Visual
Runway Length/Width:	7199 ft / 150 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	35.52998,-97.645455(est)

Administrative Information

Investigator In Charge (IIC):	Rutt, Brian
Additional Participating Persons:	James Wirt; FAA - Will Rogers FSDO
Original Publish Date:	June 29, 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=106997

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).