



Aviation Investigation Final Report

Location:	Reading, Pennsylvania	Accident Number:	ERA21LA296
Date & Time:	July 21, 2021, 16:04 Local	Registration:	N46CF
Aircraft:	Cessna 560XL	Aircraft Damage:	Substantial
Defining Event:	Runway excursion	Injuries:	6 None
Flight Conducted Under:	Part 91: General aviation - Executive/Corporate		

Analysis

The flight was being operated as a corporate flight with a two-person crew. The captain was the pilot flying (PF) and stated that while on final approach, the airplane was “eating up a lot of runway” before it settled on the runway. He applied full brakes and activated the thrust reversers, but it was not enough to stop the airplane and it subsequently entered the Engineered Material Arresting System (EMAS), which resulted in substantial damage to the pressure vessel. He admitted that he became fixated on landing, failed to take proper remedial actions, and thought he could salvage the approach despite the pilot monitoring’s (PM) repeated go-around commands.

The PM stated that about 2 nautical miles from the runway threshold, the airplane’s descent rate increased, which activated the ground proximity warning “Terrain, Pull Up.” The PM commanded a “go-around” which was not acknowledged by the PF who continued the approach. When the airplane was on a 1-mile final, the PM called for a “go-around” a second time, followed by third as they crossed the runway threshold about 30 to 40 knots too fast. The captain reported that there were no preimpact mechanical malfunctions or failures 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 captain's improper decision to continue an unstabilized approach despite several go-around calls by the pilot monitoring, which resulted in a runway excursion and substantial damage to the pressure vessel.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Descent/approach/glide path - Not attained/maintained
Personnel issues	Lack of action - Pilot
Personnel issues	Self confidence - Pilot

Factual Information

History of Flight

Approach	Miscellaneous/other
Landing-landing roll	Runway excursion (Defining event)

Pilot Information

Certificate:	Airline transport	Age:	49, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	April 5, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	March 7, 2021
Flight Time:	5424 hours (Total, all aircraft), 412 hours (Total, this make and model), 4011 hours (Pilot In Command, all aircraft), 69 hours (Last 90 days, all aircraft), 43 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Airline transport	Age:	24, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	Class 1 None	Last FAA Medical Exam:	March 22, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 15, 2020
Flight Time:	1929 hours (Total, all aircraft), 396 hours (Total, this make and model), 75 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N46CF
Model/Series:	560XL	Aircraft Category:	Airplane
Year of Manufacture:	2001	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	560-5218
Landing Gear Type:	Retractable - Tricycle	Seats:	11
Date/Type of Last Inspection:	June 12, 2021 Annual	Certified Max Gross Wt.:	20200 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:	5663 Hrs as of last inspection	Engine Manufacturer:	Pratt & Whitney Canada
ELT:	C126 installed, not activated	Engine Model/Series:	PW545A
Registered Owner:	PV TRANSPORT INC	Rated Power:	3804 Lbs thrust
Operator:	PV TRANSPORT INC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	RDG,353 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:54 Local	Direction from Accident Site:	139°
Lowest Cloud Condition:	Few / 1800 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	24°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Coldwater, MI (OEB)	Type of Flight Plan Filed:	IFR
Destination:	Reading, PA	Type of Clearance:	IFR
Departure Time:	15:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	READING RGNL/CARL A SPAATZ FLD RDG	Runway Surface Type:	Asphalt
Airport Elevation:	343 ft msl	Runway Surface Condition:	Dry
Runway Used:	13/31	IFR Approach:	Visual
Runway Length/Width:	6350 ft / 150 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	6 None	Latitude, Longitude:	40.378499,-75.965247

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence
Additional Participating Persons:	Tom Gilbert; FAA FSDO; Allentown, PA
Original Publish Date:	May 25, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=103526

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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](#).