



Aviation Investigation Final Report

Location:	Philadelphia, Pennsylvania	Accident Number:	ERA23LA277
Date & Time:	May 31, 2023, 15:45 Local	Registration:	N515AM
Aircraft:	ROCKWELL INTERNATIONAL CORP 695	Aircraft Damage:	Substantial
Defining Event:	Landing gear collapse	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said that after a normal touch down he felt a wobble in the nose landing gear before it collapsed. The nose landing gear was pushed back into its wheel well and the airplane slid to a stop on the forward lower fuselage, resulting in substantial damage.

Postaccident examination revealed the upper drag brace pivot support structure of the nose landing gear was damaged, which most likely allowed the drag brace to rotate and the nose gear to retract/collapse. It was not determined why the support structure failed.

Probable Cause and Findings

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

Failure of the nose gear support structure for unknown reasons, which resulted in the nose landing gear collapsing during landing.

Findings

Aircraft	Nose/tail landing gear - Unknown/Not determined
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Factual Information

History of Flight

Landing-landing roll	Landing gear collapse (Defining event)
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On May 31, 2023, at 1545 eastern daylight time, a Rockwell International Corporation 695 airplane, N515AM, was involved in an accident at the Philadelphia International Airport (PHL), Philadelphia, Pennsylvania. The private pilot and the passenger were not injured. The airplane was operated as a 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, he made normal landing but began to feel a “wobble” in the nose landing gear before it collapsed. The nose landing gear was pushed back into its wheel well and the airplane slid to a stop on the forward lower fuselage. Postaccident examination of the airplane revealed substantial damage to the skin, stringers, and frames that required a major repair. The pressure vessel was not breached.

According to the airplane type certificate holder, who performed an engineering inspection and some repairs to the airplane in preparation for it to be ferried for additional repairs, the nose landing gear upper drag brace pivot support structure was found damaged. This damage may have resulted in the drag brace rotating and the landing gear retracting/collapsing upon landing. It was not determined as to why the support structure failed.

Pilot Information

Certificate:	Private	Age:	74, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	February 11, 2022
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 9, 2022
Flight Time:	3669 hours (Total, all aircraft), 740 hours (Total, this make and model), 3279 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ROCKWELL INTERNATIONAL CORP	Registration:	N515AM
Model/Series:	695	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	95008
Landing Gear Type:	Tricycle	Seats:	10
Date/Type of Last Inspection:	October 3, 2023 Annual	Certified Max Gross Wt.:	10750 lbs
Time Since Last Inspection:		Engines:	2 Turbo prop
Airframe Total Time:	10561 Hrs as of last inspection	Engine Manufacturer:	Honeywell
ELT:	C126 installed, not activated	Engine Model/Series:	TPE-331-10-511K
Registered Owner:	ALLEN MYLAND INC	Rated Power:	1000 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPHL, 7 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	15:54 Local	Direction from Accident Site:	85°
Lowest Cloud Condition:	Few / 25000 ft AGL	Visibility	9 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	26°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Williamstown, NJ (17N)	Type of Flight Plan Filed:	None
Destination:	Philadelphia, PA	Type of Clearance:	Unknown
Departure Time:		Type of Airspace:	Class B

Airport Information

Airport:	PHILADELPHIA INTL PHL	Runway Surface Type:	Asphalt
Airport Elevation:	35 ft msl	Runway Surface Condition:	Dry
Runway Used:	35	IFR Approach:	Unknown
Runway Length/Width:	6500 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.872084,-75.240663(est)

Administrative Information

Investigator In Charge (IIC): Read, Leah

Additional Participating Persons: Michael Tils; FAA/FSDO; Philadelphia, PA

Original Publish Date: June 26, 2024

Last Revision Date:

Investigation Class: [Class 3](#)

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

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=192481>

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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](#).