



Aviation Investigation Final Report

Location:	Lancaster, Pennsylvania	Accident Number:	ERA22LA069
Date & Time:	November 20, 2021, 11:30 Local	Registration:	N210JB
Aircraft:	K COPTERS 47G-2	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

According to the flight instructor, the purpose of the flight was to conduct hovering and pattern work maneuvers. After the completion of the flight, the student pilot was hovering and awaiting clearance to return to the ramp. The flight instructor said she was looking around to ensure the runway was clear and making a radio call, when suddenly, the helicopter pitched up. She attempted to gain control of the helicopter but was unsuccessful. The helicopter collided with the ground and rolled over. The flight instructor said she was not on the flight controls prior to the accident event.

According to the student pilot, he stated that he was practicing hovering maneuvers for about an hour. He said that he was tired and transferred the controls to the flight instructor, as they waited to cross the field. The student pilot said that while they were waiting, the nose pitched up and the tailboom hit the ground. The helicopter then collided with the ground and rolled over. He said that he was not on the flight controls at the time of the accident.

The helicopter was inspected by a Federal Aviation Administration (FAA) inspector and revealed structural damage to the airframe. No flight control anomalies were discovered that would have precluded normal operation. During the FAA interviews of the pilots, both seemed to have believed that the other was on the flight controls at the time of the accident.

Probable Cause and Findings

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

The flight instructor's failure to ensure a positive transfer of aircraft control, which resulted in a loss of control and collision with terrain.

Findings

Personnel issues	Incorrect action sequence - Flight crew
Aircraft	Pitch control - Not attained/maintained

Factual Information

History of Flight

Maneuvering-hover	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	32,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap only
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	
Instructor Rating(s):	Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	August 1, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 2855 hours (Total, all aircraft), 43 hours (Total, this make and model), 2116 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	Commercial; Flight engineer; Flight instructor	Age:	68,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	February 4, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	1940 hours (Total, all aircraft), 17 hours (Total, this make and model), 1820 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	K COPTERS	Registration:	N210JB
Model/Series:	47G-2	Aircraft Category:	Helicopter
Year of Manufacture:	1969	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	K992
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	October 20, 2021 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	10 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2156 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	IO-435-A1F
Registered Owner:	On file	Rated Power:	165 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:	KLNS,403 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	11:39 Local	Direction from Accident Site:	173°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.54 inches Hg	Temperature/Dew Point:	6°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lancaster, PA (LNS)	Type of Flight Plan Filed:	None
Destination:	Lancaster, PA	Type of Clearance:	VFR
Departure Time:	10:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	LANCASTER LNS	Runway Surface Type:	
Airport Elevation:	402 ft msl	Runway Surface Condition:	Vegetation
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	40.122361,-76.294361(est)

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Robert C. Hall; FAA/FSDO; Honolulu, HI
Original Publish Date:	May 26, 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=104281

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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](#).