



Aviation Investigation Final Report

Location:	Palm Gardens, Nevada	Accident Number:	WPR21LA185
Date & Time:	May 6, 2021, 13:30 Local	Registration:	N972BW
Aircraft:	MCDONNELL DOUGLAS HELI CO 369FF	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	2 None
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

The pilot reported that, shortly after takeoff, the helicopter encountered a dust devil from the right side, which caused the helicopter to yaw right and descend. Despite the pilot's best attempt to control the helicopter, it struck terrain. The helicopter sustained substantial damage to the tail boom. The pilot reported that there were no preaccident mechanical malfunctions or failures with the helicopter 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 pilot's failure to maintain helicopter control during an encounter with a dust devil shortly after takeoff.

Findings

Aircraft	Yaw control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Dust devil/whirlwind - Response/compensation

Factual Information

History of Flight

Takeoff

Collision during takeoff/land (Defining event)

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	33,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	June 30, 2020
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 28, 2020
Flight Time:	(Estimated) 3209 hours (Total, all aircraft), 789 hours (Total, this make and model), 3148 hours (Pilot In Command, all aircraft), 213 hours (Last 90 days, all aircraft), 86 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	Unknown
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

NELL DOUGLAS HELI Registr	ation: N972	BW
Aircraft	t Category: Helic	opter
Amateu	ır Built:	
Serial N	lumber: 0105	FF
d Seats:	2	
2021 100 hour Certifie	d Max Gross Wt.: 3000	lbs
Engine	s: 1 Tur	bo shaft
s as of last inspection Engine	Manufacturer: Alliso	'n
alled Engine	Model/Series: 250-0	30
S AIRCRAFT CO Rated F	Power: 600 H	lorsepower
Helicopter Inc. Operati Held:	J	craft external load , On-demand air taxi
Helicopters Inc. Operate	or Designator Code: M55L	_
	Aircraft Amateu Serial N d Seats: 2021 100 hour Certifie s as of last inspection Engine alled Engine S AIRCRAFT CO Rated F Helicopter Inc. Operati	Aircraft Category:HelicAmateur Built:O105Serial Number:O105dSeats:22021 100 hourCertified Max Gross Wt.:3000Engines:1 Turs as of last inspectionEngine Manufacturer:AllisoalledEngine Model/Series:250-0S AIRCRAFT CORated Power:600 HHelicopter Inc.Operating Certificate(s) Held:Rotor

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KIFP,695 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	13:48 Local	Direction from Accident Site:	63°
Lowest Cloud Condition:	Few / 16000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.86 inches Hg	Temperature/Dew Point:	38°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Palm Gardens, NV	Type of Flight Plan Filed:	None
Destination:	Palm Gardens, NV	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

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:	35.196949,-114.85647(est)

Administrative Information

Investigator In Charge (IIC):	Nixon, Albert
Additional Participating Persons:	
Original Publish Date:	September 20, 2021
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=103046

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 <u>here</u>.