



National Transportation Safety Board Aviation Accident Final Report

Location:	Valley Center, CA	Accident Number:	GAA19CA186
Date & Time:	03/29/2019, 0715 PDT	Registration:	N83181
Aircraft:	Bell 206	Aircraft Damage:	Substantial
Defining Event:	Roll over	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The helicopter pilot reported that, during reloading operations for an agricultural spray flight and while boarding the helicopter, which was positioned on top of the loading truck's platform, he saw that the load fill hose was not connected to the helicopter. However, before starting the helicopter, and unknown to the pilot, the ground crew connected the hose. During takeoff, the helicopter rotated about 180° to the right, the helicopter's right skid struck the truck's hood, and the helicopter then rolled right and impacted terrain.

The helicopter sustained substantial damage to the main rotor system.

The pilot reported that there were no preaccident mechanical failures or malfunctions 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 ground crew's attachment of the load fill hose to the helicopter without telling the pilot, which resulted in a loss of helicopter control during takeoff.

Findings

Aircraft	Performance/control parameters - Not attained/maintained (Cause)
Personnel issues	Lack of communication - Ground crew (Cause)

Factual Information

History of Flight

Prior to flight	Aircraft servicing event
Takeoff	Roll over (Defining event)

Pilot Information

Certificate:	Commercial	Age:	72, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	06/18/2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	07/28/2017
Flight Time:	(Estimated) 25300 hours (Total, all aircraft), 9000 hours (Total, this make and model), 24300 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N83181
Model/Series:	206 B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted; Normal	Serial Number:	1095
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	03/15/2019, 100 Hour	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:		Engines:	1 Turbo Shaft
Airframe Total Time:	26847 Hours at time of accident	Engine Manufacturer:	Rolls Royce
ELT:	Not installed	Engine Model/Series:	250c20b
Registered Owner:	Hummingbirds Inc	Rated Power:	420 hp
Operator:	Hummingbirds Inc	Operating Certificate(s) Held:	Agricultural Aircraft (137)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KRNM, 1393 ft msl	Distance from Accident Site:	18 Nautical Miles
Observation Time:	1353 UTC	Direction from Accident Site:	159°
Lowest Cloud Condition:	Clear	Visibility	7 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.16 inches Hg	Temperature/Dew Point:	3° C / 2° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Valley Center, CA	Type of Flight Plan Filed:	Company VFR
Destination:	Valley Center, CA	Type of Clearance:	None
Departure Time:	0715 PDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	1 Serious	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	33.317222, -117.043611 (est)

Administrative Information

Investigator In Charge (IIC):	Eleazar Nepomuceno	Report Date:	03/20/2020
Additional Participating Persons:	Roger C Messick; FAA; San Diego, AZ		
Publish Date:	03/20/2020		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=99195		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).