



National Transportation Safety Board Aviation Accident Factual Report

Location:	Oakdale, CA	Accident Number:	WPR18LA206
Date & Time:	07/24/2018, 1800 PDT	Registration:	N107CH
Aircraft:	Bell UH 1H	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Ferry		

On July 24, 2018, about 1800 Pacific daylight time, a Bell UH-1H helicopter, N107CH, was substantially damaged during a precautionary landing near Oakdale, California. The pilot was not injured; the passenger sustained minor injuries. The helicopter was registered to Airlift Helicopters Service and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91. Visual meteorological conditions prevailed for the cross-country flight, and no flight plan was filed. The flight originated from Madera Municipal Airport (MAE), Madera, California at 1600 and was destined for Lincoln Regional Airport/Karl Harder Field (LHM), Lincoln, California.

In a post-accident telephone conversation with the National Transportation Safety Board (NTSB) Investigator in Charge, the pilot stated that he was in a straight and level flight when he heard a "strange" noise and he decided to execute a precautionary landing. He described the noise sounding like "a tarp in the back of a pickup". There were no other indications in the helicopter; all instruments were within normal operating limits, there was no vibration and the engine was producing power. About 5 ft above the ground, the helicopter entered an uncontrolled climb and yaw. The pilot was unable to recover from the loss of directional control and the helicopter impacted terrain.

In the NTSB Form 6120.1 "Pilot/Operator Aircraft Accident/Incident Report", the pilot added that, during the descent, the noise "grew louder". The helicopter touched down in the upright position. In the report, the pilot did not mention uncontrolled climb and/or yaw.

In a telephone call to the Federal Aviation Administration (FAA) Inspector, the passenger in the helicopter reported that, while in a level cruise flight, he heard a noise. The pilot checked the instrument panel and confirmed that all instruments were within normal operating limits. The passenger noted no vibrations or changes other than the noise. He did not disclose how long the noise was present nor what the noise sounded like. They made a normal approach with a controlled descend to land and that was the last thing he remembered surrounding the accident sequence.

The NTSB Materials Laboratory examined fractured pieces from the main drive shaft and damaged remnants of the swashplate assembly. The main drive shaft and the swashplate support fracture surfaces exhibited features consistent with fracture from overstress. The overstress orientation varied from part to part, but was observed in tension, bending, shear, compression, and combinations.

Postaccident exam of the helicopter did not reveal any pre-exciting malfunction that would have precluded normal operations.

Pilot Information

Certificate:	Commercial	Age:	60, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	07/27/2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N107CH
Model/Series:	UH 1H No Series	Aircraft Category:	Helicopter
Year of Manufacture:	1967	Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	67-17290
Landing Gear Type:	High Skid	Seats:	2
Date/Type of Last Inspection:	05/21/2018, Continuous Airworthiness	Certified Max Gross Wt.:	9500 lbs
Time Since Last Inspection:		Engines:	Turbo Shaft
Airframe Total Time:	8905.8 Hours as of last inspection	Engine Manufacturer:	Honeywell
ELT:		Engine Model/Series:	T53
Registered Owner:	On file	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	Agricultural Aircraft (137); Rotorcraft External Load (133)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KMOD, 73 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	0053 UTC	Direction from Accident Site:	226°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	Broken / 11000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / 22 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.9 inches Hg	Temperature/Dew Point:	38° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Madera, CA (MAE)	Type of Flight Plan Filed:	None
Destination:	Lincoln, CA (LHM)	Type of Clearance:	None
Departure Time:	1600 PDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	37.798333, -120.722222 (est)

Administrative Information

Investigator In Charge (IIC):	Maja Smith
Additional Participating Persons:	Ryan D Smith; FAA
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=97919