



# Aviation Investigation Final Report

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<b>Location:</b>	Covelo, California	<b>Accident Number:</b>	WPR22LA031
<b>Date &amp; Time:</b>	October 28, 2021, 12:00 Local	<b>Registration:</b>	N27TK
<b>Aircraft:</b>	Bell 206L-3	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Collision with terr/obj (non-CFIT)	<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Aerial observation		

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## Analysis

The pilot of the helicopter reported that, he was conducting a local area photography/video flight with passengers. Before departure he had removed the doors and provided a preflight safety briefing, which included briefing his passengers on securing their belongings. While in cruise flight, a passenger's jacked departed the helicopter and became lodged on the synchronized elevator. The pilot simultaneously felt an impact and noted resistance against the cyclic control. A precautionary landing was made without further incident. The tail rotor drive shaft was substantially damaged.

The pilot reported 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:

A passenger's unsecured object departed the cabin resulted in a collision with the tail rotor drive shaft.

## Findings

<b>Personnel issues</b>	Understanding/comprehension - Passenger
<b>Environmental issues</b>	Debris/dirt/foreign object - Contributed to outcome

## Factual Information

### History of Flight

<b>Enroute</b>	Cabin safety event
<b>Enroute-cruise</b>	Collision with terr/obj (non-CFIT) (Defining event)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor; Private	<b>Age:</b>	29, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Helicopter	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	June 20, 2021
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	September 22, 2021
<b>Flight Time:</b>	1701 hours (Total, all aircraft), 87 hours (Total, this make and model), 88 hours (Last 90 days, all aircraft), 47 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Female
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N27TK
<b>Model/Series:</b>	206L-3 NO SERIES	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	1985	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	51138
<b>Landing Gear Type:</b>	None; Skid	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	July 8, 2021 Annual	<b>Certified Max Gross Wt.:</b>	4150 lbs
<b>Time Since Last Inspection:</b>	45.4 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	14046 Hrs at time of accident	<b>Engine Manufacturer:</b>	Rolls Royce
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	C250-030P
<b>Registered Owner:</b>	NATIONAL ROTORCRAFT LLC	<b>Rated Power:</b>	650 Horsepower
<b>Operator:</b>	Helico Sonoma Inc.	<b>Operating Certificate(s) Held:</b>	Rotorcraft external load (133), On-demand air taxi (135), Commercial air tour (136), Certificate of authorization or waiver (COA)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KUKI,626 ft msl	<b>Distance from Accident Site:</b>	40 Nautical Miles
<b>Observation Time:</b>	11:56 Local	<b>Direction from Accident Site:</b>	176°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.18 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Ukiah, CA (UKI)	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>	Ukiah, CA (UKI)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:40 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	UKIAH MUNI UKI	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	616 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	3 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	39.7905,-123.26633(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Cornejo, Tealeye
<b>Additional Participating Persons:</b>	Dennis Thorpe; Federal Aviation Administration; Oakland, CA
<b>Original Publish Date:</b>	May 4, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=104227">https://data.ntsb.gov/Docket?ProjectID=104227</a>

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 [here](#).