



Aviation Investigation Final Report

Location:	POPE VALLEY, California	Accident Number:	LAX96LA093
Date & Time:	January 11, 1996, 16:00 Local	Registration:	N1309X
Aircraft:	Bell 47-G5	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot had hovered the helicopter over the loading platform and lowered the broadcaster (bucket) onto the platform for reloading. After the ground crew loaded the broadcaster, the pilot turned the helicopter and began to depart. The broadcaster cables became entangled with the truck and the helicopter descended, uncontrolled, and crashed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot misjudged the clearance between the broadcaster and the truck resulting in the broadcaster's cables becoming entangled with the truck.

Findings

Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: MANEUVERING

Findings

1. (C) AERIAL APPLICATION EQUIPMENT - ENTANGLED
2. (C) CLEARANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On January 11, 1996, at 1600 hours Pacific standard time, a Bell 47-G5 helicopter, N1309X, crashed shortly after reloading a fertilizer broadcaster (bucket) from a loading platform near Pope Valley, California, while in a hover. The pilot was conducting a visual flight rules external load aerial application flight. The helicopter, registered to and operated by North Coast Helicopter Service, Napa, California, was destroyed by impact forces and the postimpact fire. The certificated commercial pilot, the sole occupant, sustained fatal injuries. Visual meteorological conditions prevailed. The pilot had completed numerous aerial application flights and the departure time on the accident flight was not determined.

A ground witness told a Napa County Sheriff's deputy that the pilot returned from the field and hovered the helicopter over the loading platform. He lowered the broadcaster and the ground crew loaded it with fertilizer. He said that the pilot raised the broadcaster and then turned the helicopter toward the downhill slope.

The witness said that as the helicopter began to depart, a strong gust of wind pushed the helicopter back toward the loading platform and the cable from the broadcaster caught the edge of the truck. The helicopter made an abrupt left turn and descended to the ground and exploded.

An FAA airworthiness inspector from the Sacramento [California] Flight Standards District Office conducted the on-scene investigation. The inspector reported confirmed the ground witnesses statement that the helicopter's cables became entangled with the truck. He said that the surface winds were calm. He also said that the postaccident investigation disclosed no evidence of any preimpact malfunctions or failures.

The Napa County Sheriff/Coroner's Office conducted the post mortem examination on the pilot. Toxicology examinations were not performed because of the unavailability of suitable specimens.

Pilot Information

Certificate:	Commercial	Age:	56, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	October 16, 1995
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Total, all aircraft), 5000 hours (Total, this make and model), 7000 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N1309X
Model/Series:	47-G5 47-G5	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	7818
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	October 28, 1995 100 hour	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	8933 Hrs	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	VO-435
Registered Owner:	NORTH COAST HELICOPTER SERVICE	Rated Power:	250 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	1 Fatal	Latitude, Longitude:	38.669467,-122.439117(est)

Administrative Information

Investigator In Charge (IIC):	Llorente, A.
Additional Participating Persons:	RICHARD CONTE; SACRAMENTO , CA
Original Publish Date:	July 31, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=29366

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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](#).