



National Transportation Safety Board Aviation Accident Data Summary

Location:	Delano, CA	Accident Number:	WPR13FA080
Date & Time:	01/02/2013, 0615 PST	Registration:	N828AC
Aircraft:	BELL 206	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Other Work Use		

Analysis

The accident helicopter was returning to the airport. Dark night visual meteorological conditions prevailed at the time with increasing fog. The pilot of a second helicopter, who was flying nearby and was in contact with the accident pilot, stated that, before the accident, he saw the accident helicopter make a right turn; he then asked the pilot if she was lost. The accident pilot responded that she thought she was. The second pilot told her to turn left toward the airport. Shortly after, the second pilot observed a fire on the ground and attempted to contact the accident pilot but received no reply. The accident helicopter crashed about 10 miles southeast of the destination airport. Postaccident documentation of the accident site revealed signatures indicative of a steep right turn while impacting vegetation and terrain. Examinations of the helicopter and engine revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation. The dark night conditions, sparsely lit terrain, and accumulating fog reduced the visual cues available for the pilot to maintain orientation, and, under those conditions, the helicopter's external spotlights, which were on during the accident flight, could have further reduced or provided misleading visual cues. These conditions were conducive to the development of spatial disorientation.

Flight Events

Enroute - Course deviation
Maneuvering-low-alt flying - Loss of visual reference
Maneuvering - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's failure to maintain helicopter control due to spatial disorientation while maneuvering in low visibility, dark night conditions.

Findings

Personnel issues-Psychological-Attention/monitoring-Monitoring environment-Pilot - C
Personnel issues-Psychological-Perception/orientation/illusion-Spatial disorientation-Pilot - C

Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Low visibility-Contributed to outcome

Environmental issues-Conditions/weather/phenomena-Light condition-Dark-Contributed to outcome

Pilot Information

Certificate:	Commercial	Age:	62
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	1581 hours (Total, all aircraft), 189.2 hours (Total, this make and model), 1255 hours (Pilot In Command, all aircraft), 49.3 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 4.5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BELL	Registration:	N828AC
Model/Series:	206 B3	Engines:	1 Turbo Shaft
Operator:	San Joaquin Helicopters	Engine Manufacturer:	ROLLS-ROYCE
Air Carrier Operating Certificate:	Agricultural Aircraft (137)	Engine Model/Series:	250-C20B
Flight Conducted Under:	Part 91: General Aviation - Other Work Use		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PTV, 443 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Overcast / 100 ft agl
Condition of Light:	Night	Wind Speed/Gusts, Direction:	5 knots, 140°
Temperature:	0°C / -1°C	Visibility	0.25 Miles
Precipitation and Obscuration:	Fog		
Departure Point:	Delano, CA (DLO)	Destination:	Delano, CA (DLO)

Airport Information

Airport:	Delano Municipal Airport (DLO)	Runway Surface Type:	N/A
Runway Used:	N/A	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Andrew L Swick

Adopted Date: 03/07/2014

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=85924>

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