



Aviation Investigation Final Report

Location:	Salinas, California	Accident Number:	WPR10LA446
Date & Time:	September 3, 2010, 06:00 Local	Registration:	N4427F
Aircraft:	Bell 47G	Aircraft Damage:	Substantial
Defining Event:	VFR encounter with IMC	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

After taking off on a visual flight rules flight in instrument meteorological conditions, with a reported 2 1/2 miles visibility with mist and overcast clouds at 100 feet, the pilot proceeded westbound about 50 feet above ground level (agl) then, while approaching an interstate highway, climbed to 100 feet agl in order to avoid power lines. During the climb, the helicopter entered the fog. The pilot stated that after entering the fog he turned on the landing light, which blinded him and caused him to become disoriented as he attempted to make a 180-degree turn back to the airport. The pilot added that he subsequently lost control of the helicopter and impacted a highway guardrail with the tail section of the helicopter. The helicopter then came to rest inverted and partially in the southbound lane of the highway. The pilot reported no helicopter mechanical failures or malfunctions. A truck driver who witnessed the accident reported that the forward visibility was about 250 feet at the time of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's visual flight rules flight into instrument meteorological conditions, which resulted in his spatial disorientation and loss of helicopter control.

Findings

Personnel issues	Decision making/judgment - Pilot
Personnel issues	Spatial disorientation - Pilot
Personnel issues	Aircraft control - Pilot
Environmental issues	Low visibility - Contributed to outcome

Factual Information

History of Flight

Enroute	VFR encounter with IMC (Defining event)
Enroute	Loss of visual reference
Enroute	Loss of control in flight
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On September 3, 2010, about 0600 Pacific daylight time, a Bell 47G-5 helicopter, N4427F, was substantially damaged following impact with terrain near Salinas, California. The commercial pilot, the sole occupant, was seriously injured. Gomes Farm Air Service of Salinas, was operating the helicopter under the provisions of Title 14 Code of Federal Regulations Part 91. Instrument meteorological conditions prevailed at the time of the accident, and a flight plan was not filed. The repositioning flight had departed the Salinas Municipal Airport (SNS) about 0550, with its destination being an off-airport work site about 3 miles west of SNS.

According to a Federal Aviation Administration (FAA) aviation safety inspector who conducted a telephone interview with the pilot shortly after the accident, the pilot stated that he was flying about 50 feet above the ground and was concerned about the power lines that were hidden by the fog. The pilot reported that he then climbed up to about 80 feet above ground level (agl), which put him in the fog, and when he turned on the landing light in an attempt to illuminate the ground references and identify the power lines, it caused a temporary blinding condition that caused him to become disoriented. The pilot stated that he then attempted a 180-degree turn toward the airport, which resulted in a loss of control and impact with the highway pavement. The pilot reported no mechanical problems with the helicopter.

In a written report submitted to the National Transportation Safety Board investigator-in-charge (IIC) several days after the accident, the pilot reported that abeam the airport's control tower at an altitude of about 75 feet mean sea level (msl) and after turning west toward the interstate highway that borders the airport on the west, he could clearly see a [sugar plant] about 2 miles away. The pilot stated that after reaching the interstate highway he climbed to 100 feet msl and remained clear of clouds, with visibility "2 miles plus." The pilot revealed that when the helicopter was over the interstate highway's median strip between the north and southbound lanes, visibility began to deteriorate. The pilot reported that at this time he decided to turn around and return to the airport, as well as to descend in an attempt to re-establish visual contact [with ground references]. The pilot stated that during the descent and course reversal the tail section of the helicopter collided with a guard rail on the highway. The helicopter subsequently impacted the highway pavement and came to rest inverted partially in a southbound lane. The helicopter sustained substantial damage to its airframe.

A truck driver who was traveling southbound on the interstate highway reported seeing the helicopter approaching her position from the right side; it was moving from side to side. The witness stated that the helicopter subsequently impacted the terrain and rolled over, coming to rest partially inverted. The witness added that the forward visibility at the time of the accident was about 250 feet, and it was also very foggy.

At 0546, a special observation was reported by the SNS Automated Surface Observing System (ASOS), which revealed wind calm, visibility 2 ½ miles, mist, overcast clouds at 100 feet, temperature 13 degrees Celsius, dew point 12 degrees Celsius, and an altimeter setting of 29.96 inches of Mercury.

At 0553, the SNS ASOS reported wind calm, visibility 2 ½ miles, mist, overcast clouds at 100 feet, temperature 13 degrees Celsius, dew point 12 degrees Celsius, and an altimeter setting of 29.97 inches of Mercury.

Pilot Information

Certificate:	Commercial	Age:	62, 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 Without waivers/limitations	Last FAA Medical Exam:	February 16, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 18, 2008
Flight Time:	15928 hours (Total, all aircraft), 15928 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N4427F
Model/Series:	47G 5	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	7971
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	July 30, 2010 Continuous airworthiness	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7936 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	VO435
Registered Owner:	Gomes Farm Air Service Inc.	Rated Power:	260 Horsepower
Operator:	Frank Gomes	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	LSJG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	SNS,27 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	05:53 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown	Visibility	2 miles
Lowest Ceiling:	Overcast / 100 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	13°C / 12°C
Precipitation and Obscuration:	N/A - None - Mist		
Departure Point:	Salinas, CA (SNS)	Type of Flight Plan Filed:	None
Destination:	Salinas, CA (SNS)	Type of Clearance:	Special VFR
Departure Time:	05:50 Local	Type of Airspace:	

Airport Information

Airport:	Salinas Municipal Airport SNS	Runway Surface Type:	
Airport Elevation:	85 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	36.662223,-121.623886(est)

Administrative Information

Investigator In Charge (IIC):	Little, Thomas
Additional Participating Persons:	Wilbert J Robinson; Federal Aviation Administration; San Jose, CA
Original Publish Date:	December 19, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=77190

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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](#).