



National Transportation Safety Board Aviation Accident Final Report

Location:	Bryce, UT	Accident Number:	DEN02LA013
Date & Time:	12/01/2001, 1215 MST	Registration:	N911KH
Aircraft:	Bell 206B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 Serious
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled - Sightseeing		

Analysis

The helicopter was fueled to capacity the evening before, and the engine compartment was preheated before departure. Preflight inspection revealed no frost on the airframe or rotor blades. The particle separator was clean and dry. Engine start and takeoff were normal. After crossing a highway 1/2 mile south from the heliport, at an airspeed "in excess of 50 mph [and] at an altitude of approximately 50-70 feet," the engine "flamed out." There was a noticeable yaw and the pilot heard "the sound of the engine shutting off." He autorotated towards a highway right-of-way. The helicopter struck the ground hard and slid 20 to 30 feet. "Mast bumping" broke the rotor head off. It struck the rear of the helicopter, severing the tail section. The helicopter spun around and rolled over on its right side. Postaccident examination disclosed no fuel remaining because the rear skid leg had punctured the fuel tank. The pilot and his two passengers had been drenched with fuel when they evacuated the helicopter. All fuel lines and fuel filter were intact, free of debris, and contained fuel. The turbine and compressor turned freely by hand. The pilot said he noted dirt on the inside of the cap "consistent with the dirt at the crash site." Later, he wrote that "the dirt on the inside of the fuel cap was orange, the same color as at the heliport. The dirt at the crash site is more brown native soil." He noted vehicle tracks in the snow behind the helipad. Footprints led from the tire tracks to a small dirt pile and back to the helipad. Suspecting the helicopter may have been sabotaged, the pilot contacted the Federal Bureau of Investigation (FBI) field office in St. George, Utah. He said that in the 6 years the company has been doing business in the Bryce Canyon area, he had been slandered, vandalized, and threatened with death. According to the FBI special agent, his agency would not become involved unless there was "conclusive evidence" that a crime had been committed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for reasons undetermined. Contributing factors were the low airspeed and altitude at which to perform an autorotation.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. (F) AIRSPEED - LOW

3. (F) ALTITUDE - LOW

4. AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

5. (F) TERRAIN CONDITION - NONE SUITABLE

Factual Information

On December 1, 2001, approximately 1215 mountain standard time, a Bell 206B, N911KH, operated by Alladin Air Service as a nonscheduled domestic passenger sightseeing flight, was substantially damaged when it collided with terrain during a forced landing near Bryce, UT. The pilot and two passengers sustained serious injuries. Day visual meteorological conditions prevailed, and a company VFR flight plan had been filed for the local flight being conducted under Title 14 CFR Part 135. The flight originated at Bryce approximately 1215.

According to the pilot's accident report, the helicopter was fueled to capacity the evening before, and the engine compartment was preheated before departure. His preflight inspection revealed no frost on the airframe and rotor blades. The particle separator was clean and dry. Engine start and takeoff were normal. After crossing a highway 1/2 mile south from the heliport, at an airspeed "in excess of 50 mph [and] at an altitude of approximately 50-70 feet," the engine "flamed out." There was a noticeable yaw and the pilot heard "the sound of the engine shutting off." He autorotated towards a highway right-of-way. The helicopter struck the ground hard and slid 20 to 30 feet. "Mast bumping" broke the rotor head off. It struck the rear of the helicopter, severing the tail section. The helicopter spun around and rolled over on its right side

The passenger in the rear seat videotaped the flight, including the accident sequence, and a copy was made available for examination. As the helicopter sat on the helipad with its rotor blades turning, a male could be seen walking around the front of the helicopter and getting into the right seat. Engine sounds were normal during takeoff and climb-out. Shortly thereafter, a warning horn was clearly audible.

In initial telephone conversations with the pilot, he said he suspected a faulty fuel control unit (FCU) was to blame for the power loss. This was the second "loaner" FCU a Dallas overhaul facility had sent him to use while his FCU was overhauled. He submitted three FAA Form 8130-3s (Airworthiness Approval Tags) for documentation.

The helicopter was transported to the company's hangar at Panguitch Airport where, on December 4 and 5, it was examined by an FAA aviation safety inspector and a Rolls-Royce investigator. Although the pilot said the helicopter had been fueled to capacity, no fuel remained because the rear skid leg had punctured the tank. The pilot and his two passengers had been drenched with fuel when they evacuated the helicopter. All fuel lines and fuel filter were intact, free of debris, and contained fuel. The turbine and compressor turned freely by hand. The pilot wrote, "I also noted the fuel cap, when removed and examined, had dirt on the inside of the cap consistent with the dirt at the crash site."

In an undated letter submitted shortly after the accident, the pilot said he became suspicious about the dirt on the inside of the fuel cap, so he took soil samples from the accident site and from the helipad. "The dirt on the inside of the fuel cap was orange, the same color as at the heliport. The dirt at the crash site is more brown native soil," he wrote. He noted vehicle tracks in the snow behind the helipad. Footprints led from the tire tracks to a small pile of orange-colored dirt and back to the helipad. Suspecting the helicopter may have been sabotaged, the pilot contacted the Federal Bureau of Investigation (FBI) field office in St. George, Utah. He said that in the 6 years the company has been doing business in the Bryce Canyon area, he had been slandered, vandalized, and threatened with death. According to the FBI special agent, his agency would not become involved unless there was "conclusive evidence" that a crime had

been committed.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	54, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/09/2001
Occupational Pilot:		Last Flight Review or Equivalent:	10/05/2001
Flight Time:	8147 hours (Total, all aircraft), 8012 hours (Pilot In Command, all aircraft), 34 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N911KH
Model/Series:	206B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	1855
Landing Gear Type:	Skid	Seats:	5
Date/Type of Last Inspection:	08/18/2001, 100 Hour	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:	24 Hours	Engines:	1 Turbo Shaft
Airframe Total Time:	1016 Hours as of last inspection	Engine Manufacturer:	Allison
ELT:	Installed, not activated	Engine Model/Series:	250-C20B
Registered Owner:	N911KH Corp.	Rated Power:	400 hp
Operator:	Alladin Air Service	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	AQ6A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BCE, 7586 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	1209 MST	Direction from Accident Site:	355°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	Overcast / 1300 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.13 inches Hg	Temperature/Dew Point:	-3° C / -6° C
Precipitation and Obscuration:			
Departure Point:	Bryce, UT (UT77)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	1215 MST	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	2 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Report Date:	12/06/2002
Additional Participating Persons:	David G Cawthra; FAA Flight Standards District Office; Salt Lake City, UT		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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