



National Transportation Safety Board Aviation Accident Data Summary

Location:	Mesa, AZ	Accident Number:	WPR13LA099
Date & Time:	01/22/2013, 1400 MST	Registration:	N143PG
Aircraft:	GOETZ HELICYCLE	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that while in cruise flight, the helicopter's engine lost partial power. Because the helicopter was unable to maintain altitude, the pilot performed an autorotation to a residential street, and the helicopter landed hard. A witness reported that before the helicopter landed, it was oscillating and sounded as if the engine was cutting in and out. Postaccident examination of the helicopter revealed that the "B" wire, which runs between the electronic speed controller unit and the fuel controller actuator motor, had separated. The pilot further reported that he had installed the "B" wire without strain relief at the connector, which allowed the wire to disconnect from the fuel control system because of vibrations during normal flight operations. The pilot reported that this disconnection resulted in a loss of fuel controller actuator motor power, and the engine power decreased to flight idle.

Flight Events

Prior to flight - Aircraft maintenance event
Enroute-cruise - Loss of engine power (partial)
Approach - Off-field or emergency landing
Autorotation - Hard landing

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's failure to properly install and secure the wire connecting the electronic speed controller unit to the fuel controller actuator motor, which resulted in the wire's disconnection in flight and the resultant partial loss of engine power.

Findings

Aircraft-Aircraft power plant-Engine fuel and control-(general)-Malfunction - C
Aircraft-Fluids/misc hardware-Misc hardware-Misc wiring-Incorrect service/maintenance - C
Personnel issues-Task performance-Maintenance-Installation-Pilot - C

Pilot Information

Certificate:	Commercial	Age:	65
Airplane Rating(s):	Multi-engine Sea; Single-engine Land; Single-engine Sea	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	1500 hours (Total, all aircraft), 370 hours (Total, this make and model), 1400 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GOETZ	Registration:	N143PG
Model/Series:	HELICYCLE	Engines:	1 Turbo Shaft
Operator:	GOETZ JOE	Engine Manufacturer:	Solar
Operating Certificate(s) Held:	None	Engine Model/Series:	T62-32
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FFZ, 1394 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	8 knots / , 340°
Temperature:	25° C	Visibility	40 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Chandler, AZ (CHD)	Destination:	Mesa, AZ (FFZ)

Airport Information

Airport:	Falcon Field Airport (FFZ)	Runway Surface Type:	Asphalt; Concrete
Runway Used:	N/A	Runway Surface Condition:	Dry
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	33.456389, -111.723611 (est)		

Administrative Information

Investigator In Charge (IIC): Samantha A Link

Adopted Date: 01/13/2014

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86062>

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