



National Transportation Safety Board Aviation Accident Data Summary

Location:	New Port Richey, FL	Accident Number:	MIA03TA036
Date & Time:	01/02/2003, 1951 EST	Registration:	N317LC
Aircraft:	Hughes OH-6	Injuries:	2 None
Flight Conducted Under:	Public Aircraft		

Analysis

The pilot stated that after takeoff while in a left turn climbing through 600 feet at 60 knots indicated airspeed, he heard a loss of engine power. He stopped the turn and noted that the engine was at flight idle as indicated by the dual tachometer. He verified the throttle was full open, and maneuvered the helicopter towards an open area. He bled off main rotor rpm to clear obstacles that were ahead, and decelerated at 10 feet above ground level. The helicopter touched down with little forward movement, coming to rest upright with the skids and tailboom separated. The helicopter was found to contain a sufficient quantity of fuel to sustain engine operation; no contaminants were reported. Examination of the engine revealed the fuel inlet line "B" nut was found loose by 2 1/2 flats at the fuel inlet nozzle. The fuel inlet line was drained and found to contain approximately 1 teaspoon of fuel while the fuel filter was full of fuel. The engine control rigging was found to be in limits. An abnormal sound was heard during testing of the aircraft fuel shutoff valve. Operational testing of the valve revealed it was operational but rotation of the valve body occurred with rotation of the valve. The engine was removed from the helicopter and transported to the manufacturer's facility. Prior to the engine run, the bleed air valve was found failed in the closed position; the internal spring was found unwound. The engine was operated in the presence of an FAA airworthiness inspector with a new bleed valve and the accident bleed valve installed; no appreciable difference was noted with respect to starting temperature, acceleration times, or stabilized operation. A customer bleed line that attaches to the scroll was found loose, it was tightened followed by engine operation. The line was loose when checked following the engine run. No significant findings were noted during the engine runs. Safety concerns prevented operation of the engine with the as-found position of the loose "B" nut at the fuel nozzle; however, a valve was installed to divert fuel from the fuel nozzle simulating the as-found position of the loose "B" nut. During the engine run, the valve was opened 1/4 and the engine operated normally. The valve was opened to 1/2 then 3/4, the engine continued to operate normally though the fuel flow increased. The valve was then fully opened and the engine flamed out. Several hours before the accident, a mechanic performed a compressor wash. It was common practice for the mechanic to clean the fuel nozzle when he performed a compressor wash.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight of the helicopter following maintenance he observed, and failure of maintenance personnel to tighten the "B" nut at the fuel nozzle following a compressor wash resulting in the total loss of engine power. Also, the pilot's intentional decay of main rotor rpm while attempting to clear obstructions and unsuitable terrain encountered during the forced landing resulting in a hard landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

- 1. FUEL SYSTEM,LINE - LOOSE
 - 2. (C) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
 - 3. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

- 4. AUTOROTATION - PERFORMED - PILOT IN COMMAND
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Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 5. ROTOR RPM - INTENTIONAL - PILOT IN COMMAND
- 6. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED - PILOT IN COMMAND

Pilot Information

Certificate:	Commercial	Age:	52
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	5810 hours (Total, all aircraft), 1015 hours (Total, this make and model), 121 hours (Last 90 days, all aircraft), 38 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N317LC
Model/Series:	OH-6	Engines:	1 Turbo Shaft
Operator:	Pasco County Sheriff's Office	Engine Manufacturer:	Allison
Operating Certificate(s) Held:	None	Engine Model/Series:	T63-A-700
Flight Conducted Under:	Public Aircraft		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	KTPA, 26 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Overcast / 25000 ft agl	Wind Speed/Gusts, Direction:	4 knots / , 190°
Temperature:	18° C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	New Port Richey, FL (FA40)	Destination:	New Port Richey, FL (FA40)

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	28.274722, -82.632222		

Administrative Information

Investigator In Charge (IIC):	Timothy W Monville	Adopted Date:	04/28/2004
Investigation Docket:	NTSB accident and incident docket 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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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