



National Transportation Safety Board Aviation Accident Data Summary

Location:	Charles City, IA	Accident Number:	CEN11CA540
Date & Time:	08/02/2011, 1130 CDT	Registration:	N4771N
Aircraft:	BELL 47G-2	Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The operator reported that prior to the accident flight the pilot was distracted during a refueling operation. The distraction involved ground personnel entering the helicopter cabin after landing to discuss the next spraying operation with the pilot. After the conversation, the pilot departed without refueling the helicopter. While completing an aerial application, the engine experienced a loss of engine power. The pilot initiated an autorotation, during which the helicopter impacted terrain. A postaccident examination of the helicopter revealed the tail boom was partially separated and the landing gear skids were bent. The operator reported that approximately 3.5 quarts of fuel were drained from the fuel tanks, and 2 gallons of fuel were considered unusable.

Flight Events

Maneuvering - Loss of engine power (total)
Autorotation - 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 refuel the helicopter which resulted in a loss of engine power due to fuel exhaustion.

Findings

Aircraft-Fluids/misc hardware-Fluids-Fuel-Not serviced/maintained - C
Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - C
Personnel issues-Task performance-(general)-(general)-Pilot - C

Pilot Information

Certificate:	Commercial; Private	Age:	54
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Helicopter
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	4100 hours (Total, all aircraft), 3000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BELL	Registration:	N4771N
Model/Series:	47G-2	Engines:	1 Reciprocating
Operator:	Scotts Helicopter Services Inc	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:		Engine Model/Series:	VO-435 SERIES
Flight Conducted Under:	Part 137: Agricultural		

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Weather Information Source:	Witness
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	
Condition of Light:	Day	Wind Speed/Gusts, Direction:	
Temperature:		Visibility:	
Precipitation and Obscuration:			
Departure Point:	Charles City, IA	Destination:	Charles City, IA

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Aaron M Sauer	Adopted Date:	10/17/2011
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=81377		

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