



Aviation Investigation Final Report

Location:	Pixley, California	Accident Number:	WPR18CA096
Date & Time:	February 28, 2018, 15:30 Local	Registration:	N7800S
Aircraft:	Bell 47G	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot reported that, after landing and during the loading for the next chemical agricultural application flight with the engine running, he exited the helicopter to speak to the owner of the property he was spraying. He could not remember if he had instructed the ground crewman to fuel the helicopter or not. Additionally, the pilot stated that, before takeoff, he failed to check the fuel level and was unaware that the ground crewman had not refueled the helicopter. After takeoff and completing only one spray pass, the engine lost power. The pilot opined that he "just ran out of fuel." Unable to make it back to the loading area, he landed in a grove of trees, which resulted in substantial damage to the fuselage. The pilot also mentioned that due to the approaching rain, he was in a hurry to get the field sprayed before it arrived.

The pilot reported that there were no preimpact mechanical anomalies with the helicopter or engine that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A total loss of engine power due to fuel starvation, which resulted from the pilot's failure to ensure that adequate fuel was on board for the flight. Contributing to the accident was the pilot's self-induced pressure to complete the flight due to impending rain.

Findings

Aircraft	Fuel - Fluid level
Personnel issues	Fuel planning - Pilot
Personnel issues	Forgotten action/omission - Pilot
Environmental issues	Tree(s) - Effect on operation
Personnel issues	Motivation/respond to pressure - Pilot

Factual Information

History of Flight

Prior to flight	Aircraft servicing event
Maneuvering-low-alt flying	Fuel exhaustion (Defining event)
Emergency descent	Off-field or emergency landing
Emergency descent	Collision with terr/obj (non-CFIT)
Maneuvering-low-alt flying	Loss of engine power (total)

Pilot Information

Certificate:	Commercial	Age:	53, Male
Airplane Rating(s):	None	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 With waivers/limitations	Last FAA Medical Exam:	September 7, 2017
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 6, 2016
Flight Time:	(Estimated) 17000 hours (Total, all aircraft), 17000 hours (Total, this make and model), 10 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N7800S
Model/Series:	47G 5	Aircraft Category:	Helicopter
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	7854
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	April 7, 2017 Annual	Certified Max Gross Wt.:	700 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	10132 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	VO-435
Registered Owner:	On file	Rated Power:	260 Horsepower
Operator:	On file	Operating Certificate(s) Held:	Agricultural aircraft (137)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PTV,443 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	50°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.19 inches Hg	Temperature/Dew Point:	15°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pixley, CA	Type of Flight Plan Filed:	None
Destination:	Pixley, CA	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	Class E

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:	35.936389,-119.192497

Administrative Information

Investigator In Charge (IIC):	Little, Thomas
Additional Participating Persons:	Bjorn Beijens; Federal Aviation Administration; Fresno, CA
Original Publish Date:	June 14, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=96804

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