



Aviation Investigation Final Report

Location:	Archer City, Texas	Accident Number:	CEN17LA113
Date & Time:	February 9, 2017, 14:30 Local	Registration:	N2875F
Aircraft:	BELL-TRANSWORLD HELICOPTERS 47D1	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot reported that he departed from his ranch and was flying about 100 ft above ground level and at 50 knots. He intended to position the carburetor heat to "on," but he inadvertently positioned the mixture control to the "fuel cutoff" position instead, and the engine lost total power. He immediately entered an autorotation, but because the helicopter was so low and slow, there was insufficient time and altitude to flare the helicopter. He stated that the airspeed decreased and that the main rotor blade stalled, which caused the helicopter to just "drop." The pilot reported no preaccident mechanical malfunctions or failures with the helicopter that would have precluded normal operation. The pilot's inadvertent positioning of the mixture control to the "fuel cutoff" position resulted in fuel starvation and the total loss of engine power.

Probable Cause and Findings

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

The total loss of engine power due to fuel starvation, which resulted from the pilot's inadvertent positioning of the mixture control to the "fuel cutoff" position.

Findings

Aircraft	Fuel selector/shutoff valve - Unintentional use/operation
Aircraft	Fuel - Incorrect use/operation
Personnel issues	Incorrect action performance - Pilot
Aircraft	Altitude - Not attained/maintained
Aircraft	Airspeed - Not attained/maintained
Aircraft	Landing flare - Not attained/maintained

Factual Information

History of Flight

Enroute-cruise	Fuel starvation (Defining event)
Autorotation	Collision with terr/obj (non-CFIT)

On February 9, 2017, about 1430 central standard time, a Bell – Transworld Helicopter 47D1, N2875F, sustained substantial damage during a forced landing to a field near Archer City, Texas. The pilot received serious injuries. The helicopter was owned and operated by the pilot under the provisions of the 14 Code of Federal Regulations Part 91 as a personal flight. Day visual meteorological conditions prevailed at the time of the accident and no flight plan was filed. The flight departed from the pilot's ranch near Holliday, Texas, about 1420.

The pilot reported that he departed his ranch and was flying about 100 ft above ground level and at 50 knots airspeed to inspect a cattle herd near Archer, TX. He reported that he intended to check his carburetor heat to ON, but he unintentionally pulled the mixture control to the fuel cutoff position, and the engine had an immediate total loss of power.

The pilot stated that he immediately entered an autorotation, but because he was so low and slow, there was not enough time and altitude to flare the helicopter. He stated that the airspeed decreased immediately and the main rotor blade stalled, causing the helicopter to just "drop." He stated that it only took seconds for the helicopter to impact the terrain. The pilot reported no preaccident mechanical malfunctions or failures with the helicopter that would have precluded normal operation.

Pilot Information

Certificate:	Private	Age:	62, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Unknown	Last FAA Medical Exam:	November 4, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 30, 2014
Flight Time:	862 hours (Total, all aircraft), 213 hours (Total, this make and model), 757 hours (Pilot In Command, all aircraft), 16 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 0.4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL-TRANSWORLD HELICOPTERS	Registration:	N2875F
Model/Series:	47D1	Aircraft Category:	Helicopter
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	TWH-8
Landing Gear Type:	N/A; Skid	Seats:	3
Date/Type of Last Inspection:	July 2, 2015 Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2530.1 Hrs at time of accident	Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V535A
Registered Owner:	On file	Rated Power:	210 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SPS,119 ft msl	Distance from Accident Site:	24 Nautical Miles
Observation Time:	13:42 Local	Direction from Accident Site:	30°
Lowest Cloud Condition:	Few / 25000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.29 inches Hg	Temperature/Dew Point:	11°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Holliday, TX	Type of Flight Plan Filed:	
Destination:	Holliday, TX	Type of Clearance:	None
Departure Time:	14:20 Local	Type of Airspace:	

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:	33.662776,-98.744445

Administrative Information

Investigator In Charge (IIC):	Silliman, James
Additional Participating Persons:	Andy Smith; FAA Lubbock FSDO; Lubbock, TX
Original Publish Date:	June 14, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94784

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).