



Aviation Investigation Final Report

Location:	Mechanicsville, Virginia	Accident Number:	ERA18CA035
Date & Time:	November 29, 2017, 15:30 Local	Registration:	N50F
Aircraft:	DRIGGERS QUILLAN E TITAN TORNADO	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot/owner reported that the engine lost partial power after takeoff and that he then conducted a forced landing to a field. The airplane nosed over during the landing, which resulted in substantial damage to the fuselage and vertical stabilizer.

The pilot reported that he subsequently disassembled and examined the airplane and that he found water in the fuel tank, which explained the partial loss of engine power. The pilot's failure to conduct an adequate preflight inspection and to detect water in the fuel system before takeoff led to the partial loss of engine power.

Probable Cause and Findings

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

The pilot's inadequate preflight inspection and failure to detect water contamination in the fuel system, which resulted in a partial loss of engine power on takeoff.

Findings

Aircraft	Fuel - Inadequate inspection
Personnel issues	Preflight inspection - Pilot
Aircraft	Fuel - Fluid condition

Factual Information

History of Flight

Prior to flight	Miscellaneous/other
Initial climb	Fuel contamination (Defining event)
Landing	Off-field or emergency landing
Landing	Nose over/nose down

Pilot Information

Certificate:	Private	Age:	77, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3	Last FAA Medical Exam:	March 10, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 11, 2010
Flight Time:	615 hours (Total, all aircraft), 160 hours (Total, this make and model), 0 hours (Last 90 days, all aircraft), 0.1 hours (Last 30 days, all aircraft), 0.1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	DRIGGERS QUILLAN E	Registration:	N50F
Model/Series:	TITAN TORNADO UNDESIGNAT	Aircraft Category:	Airplane
Year of Manufacture:	1999	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	175
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	August 11, 2017 Condition	Certified Max Gross Wt.:	1000 lbs
Time Since Last Inspection:	0 Hrs	Engines:	Reciprocating
Airframe Total Time:	495 Hrs at time of accident	Engine Manufacturer:	Jabiru
ELT:	Not installed	Engine Model/Series:	2200
Registered Owner:	On file	Rated Power:	80 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:	KOFP,205 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	22:54 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.21 inches Hg	Temperature/Dew Point:	11°C / 4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mechanicsville, VA (VA50)	Type of Flight Plan Filed:	None
Destination:	Mechanicsville, VA (VA50)	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	WOODS FARM AIRSTRIP VA50	Runway Surface Type:	Grass/turf
Airport Elevation:	57 ft msl	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	2200 ft / 80 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.708057,-77.300277(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	Ken Bain; FAA/FSDO; Richmond, VA
Original Publish Date:	April 8, 2019
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=96402

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).