



National Transportation Safety Board Aviation Accident Final Report

Location:	West Palm Beach, FL	Accident Number:	ERA17LA122
Date & Time:	03/01/2017, 1315 EST	Registration:	N342AW
Aircraft:	XTREMEAIR GMBH XA42	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airline transport pilot reported that, after takeoff, while the airplane was about 150 ft above ground level, the engine experienced a total loss of power and that he then chose to land straight ahead in a field. The airplane touched down on soft terrain and skidded about 60 ft before coming to rest in the upright position. The firewall and engine mounts were substantially damaged.

Examination of the engine revealed no evidence of any preimpact mechanical failures or malfunctions that would have precluded normal operation. During the engine disassembly, fuel was noted in the throttle body; however, no fuel was found in the fuel manifold. In addition, no water was noted in the fuel system. The pilot stated that he washed the airplane the day before the accident, so it is possible that water entered the fuel system and resulted in a total loss of engine power on takeoff. However, since no water was found in the fuel system (the pilot washed the airplane the previous day), the reason for the loss of power could not be determined.

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 for reasons that could not be determined because postaccident examination of the engine revealed no evidence of any preimpact mechanical failures or malfunctions that would have precluded normal operation.

Findings

Environmental issues	Soft surface - Contributed to outcome
Not determined	Not determined - Unknown/Not determined (Cause)

Factual Information

On March 1, 2017, about 1315 eastern standard time, an Xtremear GMBH XA42, N342AW, was substantially damaged during a forced landing after takeoff from North Palm Beach County General Aviation Airport (F45), West Palm Beach, Florida. The airline transport pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight that was operated under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot, he washed the airplane the day prior to the accident. The accident flight was the first flight of the day, and it had 22 gallons of fuel on board. During takeoff, when the airplane was approximately 150 feet above ground level, the "engine suddenly quit as if the mixture went to idle cutoff." The pilot attempted to restart the engine without success and elected to land the airplane straight ahead in a field. During the landing, the airplane touched down on soft terrain and skidded about 60 feet prior to coming to rest in the upright position. The pilot then egressed from the airplane.

According to Federal Aviation Administration (FAA) records, the two-place, conventional gear, low-wing airplane was manufactured in 2015, and was registered to the pilot at that time. It was powered by a Lycoming AEIO-580 series, 315-horsepower engine. According to the engine maintenance logbook, the most recent condition inspection was completed February 28, 2017, at a total time of 321.5 hours, and "was found to be in a condition for safe flight."

Examination of the airplane by an FAA inspector revealed that the firewall and engine mounts were substantially damaged during the forced landing. Furthermore, all three propeller blade tips were impact damaged.

An examination of the engine revealed that crankshaft continuity was confirmed to the accessory section of the engine. Oil was noted throughout the engine. During the accident sequence, dirt and sand filled the fuel injection servo. The fuel injection servo was removed, disassembled, and fuel was noted in the throttle body. There was no debris in the fuel screen. The spark plugs were removed, and corrosion was noted on them. In addition, they were all light grey in color and exhibited normal wear when compared to the Champion Check-a-Plug chart. The fuel manifold was disassembled, and no fuel was noted inside. The diaphragm was intact, and no anomalies were noted. The engine driven fuel pump was removed and could be rotated by hand. Throughout the examination no water was noted in the engine. Furthermore, the engine had no mechanical failures or anomalies that would have precluded normal operation prior to the accident.

When asked what the pilot thought happened, he stated that he had washed the airplane the day prior to the accident flight, and water might have entered the air intake and fuel injection servo on the engine. Subsequently, the water entered into the fuel system, and "resulted in the loss of power on takeoff."

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Landing	Off-field or emergency landing Miscellaneous/other

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	41, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last FAA Medical Exam:	11/01/2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	06/06/2017
Flight Time:	11805 hours (Total, all aircraft), 220 hours (Total, this make and model), 6700 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	XTREMEAIR GMBH	Registration:	N342AW
Model/Series:	XA42 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	No
Airworthiness Certificate:	Experimental	Serial Number:	102
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	02/28/2017, Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	280 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	AEIO-580-B1A
Registered Owner:	On file	Rated Power:	315 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PBI, 21 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1312 EST	Direction from Accident Site:	143°
Lowest Cloud Condition:	Thin Broken / 2600 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 2600 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	27° C / 19° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Palm Beach, FL (F45)	Type of Flight Plan Filed:	None
Destination:	West Palm Beach, FL (F45)	Type of Clearance:	None
Departure Time:	1315 EST	Type of Airspace:	Class G

Airport Information

Airport:	NORTH PALM BEACH COUNTY GENERA (F45)	Runway Surface Type:	Grass/turf
Airport Elevation:	22 ft	Runway Surface Condition:	Dry; Vegetation
Runway Used:	08L	IFR Approach:	None
Runway Length/Width:	3679 ft / 75 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	26.842778, -80.231667 (est)

Administrative Information

Investigator In Charge (IIC):	Heidi Kemner	Report Date:	04/04/2019
Additional Participating Persons:	Juan Garcia; FAA/FSDO; Miramar, FL		
Publish Date:	04/04/2019		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94836		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).