



Aviation Investigation Final Report

Location:	Lake Pleasant, Arizona	Accident Number:	WPR19TA037
Date & Time:	November 17, 2018, 13:00 Local	Registration:	N82696
Aircraft:	Scottish Aviation SERIES 100 MDL 101	Aircraft Damage:	Substantial
Defining Event:	Inflight upset	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during a pleasure flight over a lake, about 700 ft above ground level, the engine started to shake and subsequently lost all power. The pilot attempted to restart the engine by turning the auxiliary fuel pump on, and he dove the airplane toward the water so that the windmilling propeller would help to restart the engine. The engine started, but the pilot estimated that it was only producing about 50% power. The pilot thought that he might be able to maintain or gain some altitude to reach a nearby runway; however, during the climb, the engine lost all power again. The pilot then initiated a forced landing to the lake.

Witnesses around the lake reported seeing the airplane flying at low altitude. One witness stated that the engine sounded normal but that the airplane was flying erratically. Another witness saw the airplane about 40 ft above the water. He did not hear any unusual noises emanating from the engine.

The airplane and engine remained submerged in the lake for about 3 weeks before recovery. The right wing was not recovered. cursory examination of the engine revealed continuity to the accessory drive when the propeller was rotated by hand; however, the examination was insufficient to determine whether or for what reason a loss of engine power may have occurred.

Probable Cause and Findings

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

Impact with a lake for undetermined reasons.

Findings

Not determined	(general) - Unknown/Not determined
Aircraft	Altitude - Not attained/maintained
Environmental issues	Water - Contributed to outcome

Factual Information

History of Flight

Maneuvering-low-alt flying	Inflight upset (Defining event)
Emergency descent	Ditching

On November 17, 2018, at 1300 mountain standard time, an experimental Scottish Aviation Series 100 MDL 101 airplane, N82696, was substantially damaged when it was involved in an accident near Lake Pleasant, Arizona. The pilot and passenger received minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that after takeoff he departed to the north toward a lake for a sightseeing flight. While over the lake at 700 ft above ground level (agl), the engine started to shake and subsequently lost power. The pilot attempted to restart the engine by turning the auxiliary fuel pump on and he dove the airplane toward the water in hopes of the wind milling propeller would help in restarting the engine. The engine started but the pilot estimated that it was only producing about 50% power.

The pilot noted a glider port just south of the lake and thought that he might be able to maintain or gain some altitude to make it to the glider port. The pilot initiated a climb, however the engine subsequently lost power again. The pilot then initiated a forced landing to the lake. After touchdown, the pilot and passenger exited the airplane before it sank.

Witnesses from different locations around the lake, reported seeing a low-flying airplane in the area. One witness reported that the airplane came over the hills at a low altitude and made a sweeping right turn toward the north. It then gained altitude, where the witness lost sight of it as it disappeared into a canyon. The witness stated that the engine sounded normal, but that the airplane was flying erratically. Another witness at a boat ramp saw the airplane traveling in a westerly direction about 40 ft above the water. He did not hear any unusual noises emanating from the engine. Finally, another witness, traveling in his jet boat reported that the airplane crashed about 20 ft in front him. The airplane was in a nose down attitude.

According to the pilot, the engine was rebuilt about 2 years ago and had about 100-150 hours in service. The mixture was about one-half inch lean and the auxiliary pump was in the ON position as he was flying low.

The airplane was recovered from the lake 23 days after the accident and transported to a storage facility. An examination of the airplane was performed by Federal Aviation Administration (FAA) inspectors. The engine cowling and right wing were not recovered from the lake. The propeller blades were bent aft. The crankshaft was manually rotated verifying accessory section continuity. The oil dipstick was removed, and several quarts of oil were observed. A visual inspection of the engine oil revealed no debris and it was free of metal shavings. The fuel feed lines at the wing roots were inspected and showed extensive wear to the outer lining; it was frayed, and the inner lining displayed dry rot. Fuel staining was

present on the gascolator bowl. The amount of fuel on board was not determined due to water in the left-wing tank and the separation of the right wing.

Pilot Information

Certificate:	Private	Age:	63, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	May 31, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

Passenger Information

Certificate:		Age:	36, Male
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Unknown
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Scottish Aviation	Registration:	N82696
Model/Series:	SERIES 100 MDL 101 100 101	Aircraft Category:	Airplane
Year of Manufacture:	1971	Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	128
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	IO360 SER
Registered Owner:		Rated Power:	
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:	KDVT, 1455 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	19:53 Local	Direction from Accident Site:	140°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	21°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Phoenix, AZ (DVT)	Type of Flight Plan Filed:	None
Destination:	Phoenix, AZ (DVT)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	33.903331,-112.300552(est)

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye		
Additional Participating Persons:	Roch L Renaudot; Federal Aviation Administration; Scottsdale, AZ		
Original Publish Date:	November 19, 2020	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98730		

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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](#).