



# Aviation Investigation Final Report

<b>Location:</b>	Buckley, Washington	<b>Accident Number:</b>	WPR18LA204
<b>Date &amp; Time:</b>	July 19, 2018, 14:20 Local	<b>Registration:</b>	N7008Z
<b>Aircraft:</b>	MICROLITES PTYLTD Dragonfly B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	1 Serious, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot noted no anomalies during the preflight, engine start, or runup inspections. However, shortly after takeoff, while on the crosswind leg of the traffic pattern, the engine lost power and the propeller stopped turning. The pilot prepared for a forced landing to a clearing and deployed the airplane's parachute system. The airplane impacted a tree just prior to landing. A visual examination of the engine at the accident site revealed no obvious holes in the engine case, and fuel was observed leaking from the fuel pump and fuel filter. Further examination of the fuel pump and fuel filter revealed no mechanical anomalies. The reason for the loss of engine power could not be determined based on the available information.

## 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 based on the available information.

## Findings

<b>Not determined</b>	(general) - Unknown/Not determined
-----------------------	------------------------------------



# Factual Information

## History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

On July 19, 2018, about 1420 Pacific daylight time, an experimental Moyes/Bailey Microlites PTYLTD Dragonfly B Model airplane, N7008Z, was substantially damaged when it was involved in an accident near Buckley, Washington. The pilot and passenger were seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, he performed a preflight inspection and confirmed the fuel tanks were full of fuel. No anomalies were noted as he performed the engine start, taxi, or runup. The pilot departed to the north and after turning onto the crosswind leg of the traffic pattern, the engine “seized,” and the propeller stopped turning. The pilot prepared for a forced landing to a clearing, and he deployed the airplane’s parachute system. The airplane impacted a tree just prior to landing.

Federal Aviation Administration (FAA) inspectors responded to the accident site and reported that the parachute had been deployed. The airplane sustained damage throughout the frame. The engine was visually examined, and no obvious holes in the engine case were observed. Fuel was observed leaking from the fuel pump and fuel filter.

The fuel pump and fuel filter were removed and further examined. No mechanical anomalies were identified during the examination.

## Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	53,Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Glider; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	May 1, 2018
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	August 18, 2017
<b>Flight Time:</b>	(Estimated) 19004 hours (Total, all aircraft), 70 hours (Total, this make and model), 10000 hours (Pilot In Command, all aircraft), 130 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	28,Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MICROLITES PTYLTD	<b>Registration:</b>	N7008Z
<b>Model/Series:</b>	Dragonfly B 046	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1998	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	046
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 4, 2018 Condition	<b>Certified Max Gross Wt.:</b>	926 lbs
<b>Time Since Last Inspection:</b>	180 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	635 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	C91 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	582
<b>Registered Owner:</b>		<b>Rated Power:</b>	65 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KPLU, 539 ft msl	<b>Distance from Accident Site:</b>	9 Nautical Miles
<b>Observation Time:</b>	14:15 Local	<b>Direction from Accident Site:</b>	261°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 3500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.2 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Buckley, WA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Buckley, WA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	BURNETT LANDING WN15	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	800 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	31	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2500 ft / 100 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 None	<b>Latitude, Longitude:</b>	47.127498,-122.06361(est)

## Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye		
Additional Participating Persons:	Curtis Johnson; Federal Aviation Administration; Des Moines, WA		
Original Publish Date:	April 18, 2022	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=97892">https://data.nts.gov/Docket?ProjectID=97892</a>		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).