



National Transportation Safety Board Aviation Accident Final Report

Location:	Lookout Pass, MT	Accident Number:	WPR18LA145
Date & Time:	05/22/2018, 1400 MDT	Registration:	N66GL
Aircraft:	SPORTAVIA PUTZER RF5B SPERBER	Aircraft Damage:	Substantial
Defining Event:	Loss of lift	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airline transport pilot reported that, during a cross-country flight and while climbing toward a mountain pass, the experimental, amateur-built motorglider's engine began to overheat. The pilot delayed the climb to allow the engine to cool down and continued toward the pass, which resulted in reduced terrain clearance. As the motorglider approached the pass, it encountered a downdraft, and the engine was unable to produce enough power to stop the descent. Due to the reduced altitude, the pilot realized that he would be unable to safely turn the glider around, so he executed a precautionary landing on a freeway. During the landing, the glider struck a freeway barrier.

The pilot reported that, other than the engine overheating, there was no evidence of any preimpact mechanical anomalies with the glider that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's improper decision to continue flight toward rising terrain after the engine overheated, which necessitated a precautionary landing when the motorglider could not maintain altitude in downdrafts.

Findings

Aircraft	Altitude - Not attained/maintained (Cause)
Personnel issues	Decision making/judgment - Pilot (Cause)
Environmental issues	Downdraft - Effect on operation Object/animal/substance - Contributed to outcome

Factual Information

On May 22, 2018, about 1400 mountain daylight time, an experimental amateur-built Sportavia-Putzer RF5B Sperber motor-glider, N66GL, collided with a roadside barrier following an encounter with downdrafts near Lookout Pass, Montana. The airline transport pilot received minor injuries. The glider sustained substantial damage to the left wing, firewall, and empennage. The glider was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal cross-country flight. Visual meteorological conditions prevailed about the time of the accident and no flight plan was filed. The flight originated from Missoula, Montana at 1300 and was destined for Kellogg, Idaho.

The pilot had recently purchased the glider in New York and was returning with it to Seattle, Washington. In preparation for the long cross-county flights, he modified the glider to include an extra fuel tank in the back seat adding eight gallons or 54 pounds. This additional fuel combined for a total fuel weight of 108 lbs. The pilot stated by the time of the accident, the extra tank was empty, and even when it was full, the glider was well within center of gravity (CG) limits.

The pilot had been following the interstate 90 (I-90) freeway so that he had an emergency landing area if needed. On the accident leg of the flight he was flying towards Lookout Pass, the lowest point of rising mountainous terrain, at 4,692 ft msl. While climbing through 6,100 ft to his desired altitude of 8,500 ft mean sea level (msl), the engine oil temperature began to rapidly rise. He corrected this by leveling the glider off in order to cool the engine oil. At this point, he decided to continue towards the pass and to the destination airport, as it was closer than the departure airport. When the engine oil cooled to an acceptable level he continued the climb. After reaching an altitude of about 6,500 ft, the glider encountered a downdraft. The pilot applied maximum engine power and the engine oil started to heat beyond "red line", the oil pressure started to drop, and the glider continued to descend. The pilot determined he could not safely turn around and decided to make a precautionary landing on the west-bound lanes of the I-90 freeway. While descending, he observed a vehicle obstructing the landing area. He made a turn to the left to land on the eastbound traffic lanes. While in the turn, the left wing struck a freeway barrier and the glider yawed to the left. The engine then struck the barrier, and the glider came to rest upright against the barrier. A small fire ensued and was quickly put out by witnesses.

A video of the accident was discovered online and shows the motor-glider descending towards the west-bound lanes of the freeway then turning left moments before impacting a barrier. The elevation of the accident site was 4,685 ft. The pilot reported no mechanical failures or malfunctions of the airframe or engine and stated, "the engine just got hot and didn't have the power to overcome the down draft."

At 1400 mountain daylight time, the Mullan Pass automated surface observation system, located about 2 miles from the accident site, at an elevation of 6,089 ft, reported the wind from 130° at 7 knots. No turbulence was forecast.

History of Flight

Enroute-climb to cruise	Miscellaneous/other Other weather encounter Loss of lift (Defining event) Off-field or emergency landing Collision with terr/obj (non-CFIT)
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Pilot Information

Certificate:	Airline Transport	Age:	69, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	04/22/2018
Flight Time:	28350 hours (Total, all aircraft), 39 hours (Total, this make and model), 26000 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SPORTAVIA PUTZER	Registration:	N66GL
Model/Series:	RF5B SPERBER B	Aircraft Category:	Glider
Year of Manufacture:	1974	Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	51043
Landing Gear Type:	Retractable -	Seats:	2
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LIMBACH
ELT:	C91 installed	Engine Model/Series:	1700E 3E
Registered Owner:	On file	Rated Power:	68 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:	MLP, 5168 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	1400 MDT	Direction from Accident Site:	250°
Lowest Cloud Condition:	Clear	Visibility	6 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.82 inches Hg	Temperature/Dew Point:	12° C / 6° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Missoula, MT (MSO)	Type of Flight Plan Filed:	None
Destination:	Kellogg, ID (S83)	Type of Clearance:	VFR
Departure Time:	1300 MDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	47.456111, -115.697222 (est)

Administrative Information

Investigator In Charge (IIC):	Fabian Salazar	Report Date:	02/05/2019
Additional Participating Persons:	Clifford Carpenter; FAA-FSDO; Helena, MT		
Publish Date:	02/05/2019		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=97307		

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](#).