Aviation Investigation Final Report

Location:	Monroe, Washington	**Accident Number:**	GAA19CA034
Date & Time:	October 12, 2018, 09:30 Local	**Registration:**	N488VG
Aircraft:	Just JUST AIRCRAFT (HIGHL	**Aircraft Damage:**	Substantial
Defining Event:	Fuel starvation	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the tailwheel-equipped, experimental, amateur-built airplane, who was also an airframe and powerplant mechanic, reported that, during approach to a sandbar, he side-slipped the airplane and that the engine then lost power because he was "too aggressive with the throttle and pulled it enough to bend the [carburetor] idle stop screw bracket." The engine was normally quiet, the airplane was sound proofed, and the pilot also used a noise-cancelling headset, which prevented him from being aware of the power loss until he attempted to add power to no avail. He did not have enough time to restart the engine, so the airplane settled onto the water about 15 to 20 ft short of the sandbar. Subsequently, the airplane hydroplaned and then came to rest on the sandbar inverted. The pilot reported that the reason he was aggressive with the throttle was because of a lean mixture that tended to overheat the engine during takeoff or cruise on hot days.

The airplane sustained substantial damage to the left wing lift strut, left wing, and rudder.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The Federal Aviation Administration inspector reported that the pilot had modified the number and position of the last hole in the fuel spray bar. By doing so, the pilot was able to get the engine to "barely run" to perform short-field landings. During the accident landing, it "must have cut off the flow of fuel enough to make the engine quit."

That pilot reported that he had previously attempted to mechanically enrich the mixture by drilling holes in the fuel spray bar but had drilled a hole "at the location where the engine wanted to idle," meaning that, if the hole was open, the engine would idle high, and if the hole was closed, the engine would "die." He added that it was not a problem unless he was trying to land short.

Probable Cause and Findings

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

The pilot's improper engine modification and operation, which resulted in a total loss of engine power due to fuel starvation, and the pilot's failure to maintain an adequate approach path, which resulted in the airplane landing short of the runway.

Findings

Aircraft	Descent/approach/glide path - Not attained/maintained
Personnel issues	Modification/alteration - Pilot
Personnel issues	Use of equip/system - Pilot
Aircraft	Fuel - Not specified
Environmental issues	Wet surface - Contributed to outcome

Factual Information

History of Flight

Approach-VFR pattern final	Fuel starvation (Defining event)
Approach-VFR pattern final	Loss of engine power (total)
Landing	Roll over

Pilot Information

Certificate:	Commercial	**Age:**	67,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	None	**Last FAA Medical Exam:**	April 2, 2007
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	July 20, 2018
Flight Time:	(Estimated) 7000 hours (Total, all aircraft), 974 hours (Total, this make and model), 7000 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Just	**Registration:**	N488VG
Model/Series:	JUST AIRCRAFT (HIGHL No Series	**Aircraft Category:**	Airplane
Year of Manufacture:	2010	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental light sport (Special)	**Serial Number:**	JA214-08-10
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	February 3, 2018 Annual	**Certified Max Gross Wt.:**	1320 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	975 Hrs at time of accident	**Engine Manufacturer:**	Jabiru
ELT:	C91A installed, not activated	**Engine Model/Series:**	3300
Registered Owner:		**Rated Power:**	120 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	Commuter air carrier (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KPAE,606 ft msl	**Distance from Accident Site:**	12 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	295°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Broken / 4900 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.13 inches Hg	**Temperature/Dew Point:**	11°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Auburn, WA (S50)	**Type of Flight Plan Filed:**	None
Destination:	Monroe, WA	**Type of Clearance:**	None
Departure Time:	09:00 Local	**Type of Airspace:**	Class G

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:**	47.825,-122.018608(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	William Shinn; FAA; Seattle, WA
Original Publish Date:	June 5, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98535

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