Aviation Investigation Final Report

Location:	Newport, Oregon	**Accident Number:**	WPR18LA055
Date & Time:	December 23, 2017, 14:15 Local	**Registration:**	N959M
Aircraft:	KELLEY DERRICK/LEZA AIRCAM	**Aircraft Damage:**	Substantial
Defining Event:	Inflight upset	**Injuries:**	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the twin-engine, experimental, amateur-built airplane was landing with a right crosswind. The pilot turned onto final approach for the runway and the airplane banked left and began to descend. The pilot attempted to correct, but the bank and heading change persisted, the airplane's descent rate increased, and the airplane impacted trees and the ground short of the runway threshold. The airplane sustained substantial damaged to both wings.

Examination of the airframe and engines did not reveal any pre-impact mechanical anomalies that would have precluded normal operation. Based on the available evidence, it is likely that the airplane encountered a crosswind during final approach, and the pilot was unable to regain control before impact with trees and terrain.

Probable Cause and Findings

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

The pilot's failure to maintain airplane control while on final approach for landing in crosswind conditions, which resulted in a collision with trees.

Findings

Personnel issues	Aircraft control - Pilot
Environmental issues	Crosswind - Effect on operation

Factual Information

History of Flight

Approach-VFR pattern final	Inflight upset (Defining event)
Uncontrolled descent	Attempted remediation/recovery

On December 23, 2017, about 1415 Pacific standard time, an experimental, amateur-built Aircam airplane, N959M, was substantially damaged when it was involved in an accident near Newport, Oregon. The airline transport pilot received minor injuries, and the pilot-rated passenger was uninjured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that he planned to land on runway 2 at Newport Municipal Airport (ONP), Newport, Oregon. He recalled that the reported winds were from 090° at 9 knots. The airplane was stabilized on approach with a speed of about 76 mph and zero flaps. About 400 ft above the ground, the pilot felt a slight updraft and responded with an airplane-nose-down input to the flight controls. Very shortly thereafter, the pilot felt a significant, uncommanded "nose dip" and a rapid and significant left bank. The pilot applied control inputs in an attempt to correct, but the airplane had lost about 200 ft, its track had changed nearly 90° to the left, and the airplane appeared to be heading toward a building. The pilot focused on avoiding both the building and an aerodynamic stall but was unable to prevent the airplane from impacting trees. He estimated that from the time of the upset to the accident was 5 to 10 seconds.

A GoPro Camera installed below the left wing revealed that the airplane was in a left turn to final for runway 2 at an indicated altitude of about 450 ft msl, descending about 200 ft per minute (fpm), with an indicated airspeed of 70 to 75 mph. A windsock located to the left of the runway 2 threshold was extended straight out and indicated about a 20° right crosswind. The airplane banked further left and began pitching nose down, and the pilot increased the engine rpm to 5,000. At that time, the altitude was about 250 ft msl, the airplane was descending about 250 fpm, and the indicated airspeed was about 70 mph. The airplane then pitched slightly up, and the pilot quickly retarded and then re-advanced the throttles. The indicated airspeed was just below 70 mph and the airplane was descending about 500 fpm. The pilot then retarded the throttles to idle as the airplane began striking trees. The airplane impacted the ground and came to a stop with both engines continuing to operate at high rpm. At all times, the tachometer showed that both engines were producing power and were synchronized in rpm.

The pilot recalled that at least one of the engines continued to operate after impact, and in response he shut the engine(s) down and secured the cockpit.

The airplane came to rest upright in a partially wooded area about 550 ft short of the runway's displaced threshold and about 650 ft northwest of the extended runway centerline. The airplane cut a swath about 75 to 100 ft long through the trees in a direction about 45° left of the runway alignment. Both floats were significantly damaged and displaced, and both wings were substantially damaged.

Examination of the flight control system did not reveal any indications of pre-impact mechanical abnormalities. Aileron control cable continuity was established between the tandem cockpits and the flight control surfaces. Elevator control continuity between the aft cockpit control stick and the flight control surfaces was verified. The elevator control cable between the forward and aft cockpit was fracture-separated, consistent with impact damage. Rudder control continuity between the cockpits and the rudder was confirmed. Both fuel tanks were at least 1/4 full, and their caps were properly installed and secure. Both engines and their respective 3-bladed composite propellers were intact, and both propellers/engines could be rotated manually. There were no indications of pre-impact mechanical failures.

The airplane was equipped with two engine data monitors. Both devices were successfully downloaded and contained data from the accident flight. Recorded parameters included exhaust gas and cylinder head temperatures for each of the four cylinders, fuel flow, fuel used, and battery voltage. None of these parameters provide a direct measure of engine rpm or power; however, both engines displayed normal operating temperatures throughout both recordings.

Pilot Information

Certificate:	Airline transport; Flight engineer	**Age:**	51,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	November 8, 2017
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 20, 2017
Flight Time:	12400 hours (Total, all aircraft), 12 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft)		

Passenger Information

Certificate:		**Age:**	Female
Airplane Rating(s):		**Seat Occupied:**	Rear
Other Aircraft Rating(s):		**Restraint Used:**	4-point
Instrument Rating(s):		**Second Pilot Present:**	Yes
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:		**Last FAA Medical Exam:**	
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	KELLEY DERRICK/LEZA	**Registration:**	N959M
Model/Series:	AIRCAM NO SERIES	**Aircraft Category:**	Airplane
Year of Manufacture:	2007	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	AC0129
Landing Gear Type:	Retractable - Tandem	**Seats:**	2
Date/Type of Last Inspection:	August 15, 2017 Condition	**Certified Max Gross Wt.:**	2000 lbs
Time Since Last Inspection:	13 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	836 Hrs at time of accident	**Engine Manufacturer:**	Rotax
ELT:	C91 installed, not activated	**Engine Model/Series:**	912ULS
Registered Owner:	Fly Seaplanes LLC	**Rated Power:**	100 Horsepower
Operator:	Fly Seaplanes LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	ONP,160 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	14:15 Local	**Direction from Accident Site:**	0°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Broken / 1800 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	80°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.32 inches Hg	**Temperature/Dew Point:**	7°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Astoria, OR (AST)	**Type of Flight Plan Filed:**	None
Destination:	Newport, OR (ONP)	**Type of Clearance:**	None
Departure Time:	13:30 Local	**Type of Airspace:**	Unknown

Airport Information

Airport:	Newport Municipal ONP	**Runway Surface Type:**	Asphalt
Airport Elevation:	160 ft msl	**Runway Surface Condition:**	Vegetation
Runway Used:	2	**IFR Approach:**	None
Runway Length/Width:	3000 ft / 75 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor, 1 None	**Latitude, Longitude:**	44.578609,-124.06277

Administrative Information

Investigator In Charge (IIC):	Huhn, Michael
Additional Participating Persons:	Shawn Kellar; FAA; Portland, OR
Original Publish Date:	May 5, 2021
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=96532