



Aviation Investigation Final Report

Location:	Kamuela, Hawaii	Accident Number:	WPR13LA007
Date & Time:	October 7, 2012, 10:30 Local	Registration:	N513WK
Aircraft:	Schleicher ASH25M	Aircraft Damage:	Substantial
Defining Event:	Loss of lift	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that on the day of the accident the weather was marginal, with low clouds and shifting wind. He took off in the motorized glider and then stowed the engine. About 1 mile northwest of the airport, the pilot realized that the wind was not conducive to convective activity, and the glider started to descend. The pilot turned back toward the airport and extended the engine/propeller to restart the engine; however, the engine would not start. The pilot entered the downwind leg of the traffic pattern and lowered the landing gear. As the pilot was turning from the downwind to the base leg of the traffic pattern, the left wing of the glider stalled; the glider subsequently impacted the ground and cart-wheeled before coming to a rest in a field. The pilot reported that there were no preimpact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation. The pilot reported that he believed the accident occurred because "everything happened so fast," and he was unable to use a checklist.

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 control of the glider after it encountered atmospheric conditions while maneuvering where the lift was not sufficient to maintain flight, which resulted in a stall and impact with terrain during the subsequent approach to land.

Findings	
Environmental issues	Thermal lifting - Effect on operation
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight	
Maneuvering	Loss of lift (Defining event)
Approach-VFR pattern base	Aerodynamic stall/spin
Approach-VFR pattern base	Collision with terr/obj (non-CFIT)

On October 7, 2012, about 1030 Hawaiian standard time, a Schleicher ASH-25M glider, N513WK, landed approximately 1 mile short of the runway at the Waimea-Kohala airport (PHMU), Kamuela, Hawaii. The private pilot sustained serious injuries; the glider sustained substantial damage to both wings. The glider was registered to, and operated by, the pilot under the provisions of Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the local personal flight that departed PHMU at approximately 1000.

The pilot reported that on the day of the accident the weather was marginal with low clouds. The wind was shifting between a trade wind and a westerly wind. He took off from runway 22, and shortly thereafter stowed the engine. About 1 mile northwest of the airport about 500 feet above the ground, the wind had not changed back to a trade wind and the glider was not getting adequate lift. The pilot turned back towards the airport, and raised the engine pylon to restart the engine, however, the engine would not start. He entered the traffic pattern, and while on the downwind leg, he noted that the glider would not make it to the runway. Given a lack of adequate emergency landing sites around the airport, he elected to still attempt to land on the runway. The pilot lowered the landing gear and turned to base when he felt the left wing stall. The wing subsequently contacted the ground damaging an approximate 4 foot section of the left wing's outboard leading edge. The glider cartwheeled before coming to a rest in a field.

During a telephone conversation with the National Transportation Safety Board Investigator-In-Charge, the pilot reported that there were no mechanical anomalies with the engine as it was running about 5-10 minutes prior to the accident. He mentioned that he believes it was an operational error because everything was happening so fast he was unable to use a checklist.

According to the "ASH 25 Mi flight manual", it states that it is possible to land the glider with the engine/propeller extended; but to expect a higher than normal sink rate. The manual also states that in the event of an engine failure, if a crash landing is imminent that it is best to retract the powerplant to at least the halfway point to increase the glide distance, which will potentially allow for a better emergency landing site.

Pilot Information

Certificate:	Commercial; Private	Age:	80,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown With waivers/limitations	Last FAA Medical Exam:	June 30, 2011
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 31, 2011
Flight Time:	7000 hours (Total, all aircraft), 120 hours (Total, this make and model), 7000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Schleicher	Registration:	N513WK
Model/Series:	ASH25M	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	25263
Landing Gear Type:	Retractable - Tailwheel	Seats:	2
Date/Type of Last Inspection:	August 19, 2012 Annual	Certified Max Gross Wt.:	1742 lbs
Time Since Last Inspection:	2 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	MID-WEST
ELT:	Not installed	Engine Model/Series:	AE50R
Registered Owner:	WOODS WOODSON K	Rated Power:	50 Horsepower
Operator:	WOODS WOODSON K	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PHK0,47 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	10:00 Local	Direction from Accident Site:	233°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	28°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitat	tion	
Departure Point:	Kamuela, HI (PHMU)	Type of Flight Plan Filed:	None
Destination:	Kamuela, HI (PHMU)	Type of Clearance:	None
Departure Time:	10:15 Local	Type of Airspace:	

Airport Information

Airport:	Waimea-Kohala Airport PHMU	Runway Surface Type:	Asphalt
Airport Elevation:	2671 ft msl	Runway Surface Condition:	Unknown
Runway Used:	22	IFR Approach:	None
Runway Length/Width:	5197 ft / 100 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	20.000833,-155.667495(est)

Administrative Information

Investigator In Charge (IIC):	Link, Samantha	
Additional Participating Persons:	Herman L Rios; Federal Aviation Administration; Honolulu, HI	
Original Publish Date:	November 6, 2013	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=85298	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available <u>here</u>.