



Aviation Investigation Final Report

Location:	Clayton, California	Accident Number:	WPR21LA040
Date & Time:	November 7, 2020, 12:51 Local	Registration:	N18MA (A1); N81KP (A2)
Aircraft:	Schleicher ASW20C (A1); Schleicher ASW27 (A2)	Aircraft Damage:	Substantial (A1); Substantial (A2)
Defining Event:	Midair collision	Injuries:	1 Serious (A1); 1 Serious (A2)
Flight Conducted Under:	Part 91: General aviation - Personal (A1); Part 91: General aviation - Personal (A2)		

Analysis

The pilot of an ASW-20C glider reported that, while following lift under cumulus clouds, he observed another glider, an ASW-27 traversing from right to left. He entered into a steep dive in an attempt to avoid the other glider, however, the ASW-20C impacted the ASW-27 glider. Following the collision, the ASW-20C entered a steep descent and rolled inverted before the pilot elected to bail out and parachute to safety. The ASW-20C pilot added that the glider was equipped with a FLARM collision system, and prior to the collision, did not receive any alerts of additional traffic.

The pilot of an ASW-27 glider reported that while maneuvering, another glider suddenly appeared to his left and followed by a collision. The pilot stated that his glider immediately entered a descent and was out of control. The pilot of the ASW-27 subsequently bailed out and parachuted to safety. The glider was equipped with a FLARM collision system but was inoperative awaiting an annual software update.

The ASW-20C glider sustained substantial damage to the left wing. The ASW-27 glider sustained substantial damage to the left wing and aft fuselage.

Both glider pilots reported that there were no preaccident mechanical failures or malfunctions with the gliders 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 failure of both pilots of each glider to see an avoid one another while maneuvering, which resulted in a mid-air collision.

FindingsEnvironmental issues (A1)Aircraft - Effect on equipmentPersonnel issues (A1)Monitoring other aircraft - PilotEnvironmental issues (A2)Aircraft - Effect on equipmentPersonnel issues (A2)Monitoring other aircraft - Pilot

Factual Information

History of Flight	
Maneuvering (A1)	Midair collision (Defining event)
Maneuvering (A2)	Midair collision

Pilot Information (A1)

Certificate:	Private	Age:	71,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	Glider	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	BasicMed With waivers/limitations	Last FAA Medical Exam:	December 2, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 7, 2020
Flight Time:	(Estimated) 1847 hours (Total, all aircraft), 186 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Pilot Information (A2)

Certificate:	Commercial	Age:	73,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Glider	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Glider	Toxicology Performed:	
Medical Certification:	BasicMed With waivers/limitations	Last FAA Medical Exam:	April 2, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 9, 2020
Flight Time:	(Estimated) 2794 hours (Total, all aircraft), 2723 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information (A1)

Aircraft Make:	Schleicher	Registration:	N18MA
Model/Series:	ASW20C	Aircraft Category:	Glider
Year of Manufacture:	1986	Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	20844
Landing Gear Type:	Retractable - Tailwheel	Seats:	1
Date/Type of Last Inspection:	February 22, 2020 Annual	Certified Max Gross Wt.:	1001 lbs
Time Since Last Inspection:		Engines:	0
Airframe Total Time:	1431.7 Hrs at time of accident	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	Paul N Loewenstine	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Aircraft and Owner/Operator Information (A2)

Aircraft Make:	Schleicher	Registration:	N81KP
Model/Series:	ASW27	Aircraft Category:	Glider
Year of Manufacture:	1997	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	27041
Landing Gear Type:	Retractable - Tailwheel	Seats:	1
Date/Type of Last Inspection:	March 3, 2020 Annual	Certified Max Gross Wt.:	1103 lbs
Time Since Last Inspection:		Engines:	0
Airframe Total Time:	4245 Hrs at time of accident	Engine Manufacturer:	
ELT:	Installed	Engine Model/Series:	
Registered Owner:	Laurance J Suter	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KLVK,393 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	160°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	Unknown / Convective
Wind Direction:		Turbulence Severity Forecast/Actual:	Unknown / Moderate
Altimeter Setting:	29.73 inches Hg	Temperature/Dew Point:	16°C / 0°C
Precipitation and Obscuration:			
Departure Point:	Byron, CA (C83) (A1); Byron, CA (C83) (A2)	Type of Flight Plan Filed:	None (A1); None (A2)
Destination:	Byron, CA (C83) (A1); Byron, CA (C83) (A2)	Type of Clearance:	None (A1); None (A2)
Departure Time:	11:50 Local (A1); 12:05 Local (A2)	Type of Airspace:	Class E (A1); Class E (A2)

Wreckage and Impact Information (A1)

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	37.839997,-121.87482(est)

Wreckage and Impact Information (A2)

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	37.839997,-121.87482(est)

Administrative Information

Investigator In Charge (IIC):	Gutierrez, Eric
Additional Participating Persons:	Matthew Deseelhorst; FAA; Oakland, CA
Original Publish Date:	September 16, 2021
Last Revision Date:	
Investigation Class:	<u>Class 4</u>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=102252

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 here.