



Aviation Investigation Final Report

Location: MORGAN, Utah Accident Number: SEA95LA217

Date & Time: September 14, 1995, 16:10 Local Registration: N2478W

Aircraft: Schweizer SGS 1-26B Aircraft Damage: Destroyed

Defining Event: 1 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The tow plane pilot reported that the glider released at an estimated altitude of 100-150 feet AGL, approximately midfield, during the takeoff/initial climb. Several witnesses observed the glider yawing/swerving back and forth and then release. The glider pilot executed a left turn back toward the runway. Witnesses reported that during the turn, the glider entered a stall/spin and impacted the ground. No mechanical malfunctions with either the glider's controls or the tow release hook mechanism were found. The tow rope was found to be intact following the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the pilot to maintain adequate airspeed, while maneuvering to land after a low altitude tow release, which resulted in a stall/spin and collision with terrain.

Findings

Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. GLIDER/TOW RELEASE

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

2. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND 3. (C) STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

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Factual Information

HISTORY OF FLIGHT

On September 14, 1995, approximately 1610, mountain daylight time, a Schweizer SGS 1-26B glider, N2478W, registered to and being flown by a 74 year old private pilot, was destroyed during collision with terrain during an uncontrolled descent following a loss of control in flight while maneuvering. The glider had just departed the Morgan County Airport, Morgan, Utah. The pilot, who initially survived the impact, expired several hours later. Visual meteorological conditions prevailed and no flight plan had been filed. The flight, which was personal, was to have been operated under 14CFR91.

The pilot of the tow aircraft reported taking off on runway 21 (3,800 feet in length) at 1605. He reported the winds at 240 degrees and 10 to 12 miles per hour. Shortly after takeoff (approximately 800 feet down the runway) he noticed a slight jerk on the tow rope and looked in the rear-view mirror at the glider noting that it was "back in position, possibly slightly low, but no slack in the rope." Thereafter, the tow pilot noted a dramatic increase in rate of climb and looked back at the glider observing it "in an approximate 30 degree bank to the left." The pilot returned to the Morgan County airport during which he observed the accident site.

Subsequent to landing, the towplane pilot ascertained that the glider's tow hook was open (in the release position) and examined the tow rope finding it intact and in normal condition. Additionally, he estimated that the glider pilot "cut loose from the towplane before reaching the mid-point of the runway and at an altitude less than 150 feet and greater than 100 feet" (refer to attached statement).

One witness who reported observing the glider during the accident sequence stated that he "saw the glider on tow. It began to yaw left to right, while way off to the right (from the glider's perspective). The glider released off tow. At first the glider went straight (about 100 yards) then it started a very slow bank to the left. At that point the glider stalled and "spun in" to the ground (turning to the left continuously)."

A second witness reported that "After the glider was airborne a little, he began to swerve back & forth quite a bit veering to the west side of the runway. About that time, the tow rope came off & the glider straightened up then turned back towards the north end of the runway. While in the turn the glider appeared to stall & spin about two complete turns & struck the ground facing north." (Both witnesses submitted statements included in Morgan County Sheriff's Department Report Case Number 95-0961).

AIRCRAFT INFORMATION

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Paperwork retrieved from the aircraft indicated that the pilot had purchased and registered the glider on August 26, 1995. Additionally, the glider's logbook showed that on August 23, 1995, FAA Airworthiness Directive (AD) 87-02-1 was complied with. This AD established maintenance and inspection procedures to insure that the tow hook does not inadvertently slip out of the release arm.

PERSONNEL INFORMATION

According to FAA records the pilot obtained a student pilot certificate (glider only) on September 2, 1971, and received a private pilot certificate with a glider rating on October 9, 1971. The records showed that the pilot requested a duplicate certificate on May 4, 1993. No other airman certification information was noted regarding ratings or dates. No airman medical information existed within the FAA records and a glider rated private pilot is not required to maintain an airman's medical certificate.

A pilot's glider logbook labelled "#2" was provided by the FAA and showed an opening date of April 30, 1994, with 55.6 hours of dual and 20.7 hours of solo (pilot-in-command) flight time brought forward. Between April 30, 1994, and August 30, 1995, the logbook showed an additional 18.8 hours of dual and 25.8 hours of solo flight time. Total flight time logged was approximately 121 hours, of which 37% was logged during the 16 month period shown in this logbook spanning a total of 67 flights.

The logbook showed only two flights in the SGS 1-26B glider (N2478W), the first on August 28th and the second on 30th of 1995. Additionally, the last open page of the logbook contained a handwritten entry as follows:

"26 Aug 95 - I certify that on this date I gave Mr. Cornell Ridderhoff a cockpit check in, and discussed handling & performance characteristics of the SGS-1-26.

Stanley E. McGrew CFIG 1240495 EXP 04/97"

WRECKAGE AND IMPACT INFORMATION

On site examination was conducted by inspectors from the FAA's Salt Lake City Flight Standards District Office (FSDO). The aircraft crashed at a location several hundred feet east of runway 03/21 and approximately midfield (refer to CHART I). The inspectors reported finding no evidence of any control surface malfunction or mis-rigging. Additionally, they reported finding no evidence of a malfunction or premature release of the tow rope release mechanism (refer to Attachment F-I). The outboard leading edge of the left wing was observed to display crushing damage and was bent upwards slightly and the right wing rear attach point was observed to be broken (refer to photographs 1/2 and DIAGRAM I).

MEDICAL AND PATHOLOGICAL INFORMATION

Post mortem examination of the pilot was conducted by Maureen J. Frikke, M.D., at the Offices

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of the Medical Examiner, 48 North Medical Drive, Salt Lake City, Utah, 84113, on September 15, 1995. The pilot received medical treatment during the short time period following the accident and prior to his expiration. Toxicological evaluation of samples from the pilot was conducted by both the State of Utah and the FAA's Toxicology and Accident Research Laboratory. All tests were negative (refer to attached reports).

ADDITIONAL INFORMATION

The following items were sent to the NTSB by FAA personnel from the Salt Lake FSDO:

Sailplane Log Book + one yellow tag Pilot Logbook #2 FAA Form 1362 (Airworthiness Certificate) Form 8050-1 (pink copy - acft registration application)
Two pieces of the tow release hook from N2478W Schweizer Sailplane Flight manual

These items were sent via certified mail to the pilot's address on March 8, 1995.

Pilot Information

Certificate:	Private	Age:	74,Male
Airplane Rating(s):	None	Seat Occupied:	Center
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Unknown None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	121 hours (Total, all aircraft), 1 hours (Total, this make and model), 46 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Schweizer	Registration:	N2478W
Model/Series:	SGS 1-26B SGS 1-26B	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Aerobatic	Serial Number:	375
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	August 23, 1995 Annual	Certified Max Gross Wt.:	600 lbs
Time Since Last Inspection:	1 Hrs	Engines:	Unknown
Airframe Total Time:	1756 Hrs	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	RIDDERHOFF, CORNELL, C.	Rated Power:	
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HIF ,4789 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	15:55 Local	Direction from Accident Site:	243°
Lowest Cloud Condition:	Scattered / 6000 ft AGL	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:05 Local	Type of Airspace:	Class G

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Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	41.010925,-111.66925(est)

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Administrative Information

Investigator In Charge (IIC):	Mccreary, Steven	
Additional Participating Persons:	LEW OLSON; SALT LAKE CITY, UT	
Original Publish Date:	May 9, 1996	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=42248	

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.

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