



Aviation Investigation Final Report

Location:	STERLING, Colorado	Accident Number:	FTW97LA004
Date & Time:	October 4, 1996, 12:40 Local	Registration:	N597R
Aircraft:	PZL-Bielsko SZD-59	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While returning to land after a practice aerobatics flight, the pilot flew the glider down the runway of intended landing at 100 feet above ground level and then entered a 45 degree bank left turn. The nose began to drop and the bank angle increased to about 60 degrees and the glider dove into the ground next to the runway with a nose attitude of approximately 60 degrees nose down. At the time, the glider tow plane was back taxiing on the runway. Terrain around the airport was flat grass covered farm fields.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of control when the pilot exceeded the velocity of stall while in a turn.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

1. (C) AIRSPEED(VS) - EXCEEDED - PILOT IN COMMAND

Factual Information

On October 4, 1996, at 1240 mountain daylight time, a PDPS PZL-Bielsko SZD-59 glider, N597R, impacted the ground after entering uncontrolled flight while in the traffic pattern at Sterling Municipal Airport, Sterling, Colorado. The commercial pilot received fatal injuries and the aircraft sustained substantial damage. Visual meteorological conditions prevailed for this local area personal flight operating under Title 14 CFR Part 91 and no flight plan was filed. The flight departed Sterling, approximately 20 minutes prior to the accident.

According to witnesses, the pilot had been practicing in the aerobatics area and was in the process of returning to the airport for landing. An eyewitness said that the tow plane landed on runway 33 and began back taxiing. The glider then came down the runway about 100 feet above ground level, wings level, and entered a left turn at about 45 degrees angle of bank. The witness said the nose began to drop and the bank angle increased to about 60 degrees. The glider then dove into the ground beside the runway at approximately 60 degrees nose down attitude. The witness said the glider came to rest in an upright position facing to the south. The terrain around the runway was flat grass covered farm fields.

An examination of the glider by an FAA airworthiness inspector provided no evidence of preimpact failure or malfunction.

According to the flight manual for the aircraft, the minimum speed marking on the airspeed indicator is 51 knots (59 mph). This speed is 1.1 X Vs (velocity of stall), wings level, at the maximum gross weight approved for aerobatics. Accelerometer limits are +7 and -5. Stall/spin recovery requires a maximum of 623 feet loss of altitude for recovery.

Pilot Information

Certificate:	Commercial	Age:	56,Female
Airplane Rating(s):	Single-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:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	April 3, 1995
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	665 hours (Total, all aircraft), 23 hours (Total, this make and model), 543 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PZL-Bielsko	Registration:	N597R
Model/Series:	SZD-59 SZD-59	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	B-2164
Landing Gear Type:		Seats:	1
Date/Type of Last Inspection:	July 14, 1995 Annual	Certified Max Gross Wt.:	838 lbs
Time Since Last Inspection:		Engines:	Unknown
Airframe Total Time:		Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	RUTH A. STEVENS	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:	AKO ,4714 ft msl	Distance from Accident Site:	34 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	170°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	21°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(STK)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	STERLING MUNICIPAL STK	Runway Surface Type:	Concrete
Airport Elevation:	4038 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	4730 ft / 75 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	40.620109,-103.189765(est)

Administrative Information

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	JOE JORDAN; DENVER , CO
Original Publish Date:	March 31, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=20080

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