



National Transportation Safety Board Aviation Accident Final Report

Location:	TOLEDO, WA	Accident Number:	SEA86FA211
Date & Time:	08/01/1986, 1607 PDT	Registration:	N5720S
Aircraft:	SCHWEIZER SGS-2-33	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE WEAK LINK AT THE TOW VEHICLE BROKE DURING LAUNCHING. THE PLT LOWERED THE NOSE OF THE ACFT AND TURNED INTO THE WIND. THE PLT STATED THAT THE ACFT WAS STALLED AND THAT HE WAS UNABLE TO STOP THE DESCENT RATE. THE ACFT STRUCK THE RUNWAY IN A SLIGHT NOSE DOWN ATTITUDE. THE WEAK LINK ROPE WAS NOT AVAILABLE FOR TESTING TO DETERMINE THE STRENGTH OF THE ROPE AND ANY DEFECTS. THE PLT ASSUMED TOO HIGH OF A PITCH ANGLE TOO LOW TO THE GROUND DURING INITIAL CLIMB FOR THIS TYPE OF LAUNCH WITH THE TOW HOOK BEING FORWARD OF THE ACFT'S C.G. BEING APPROXIMATELY 150 FT AGL WHEN THE STALL OCCURRED, THE PLT WAS UNABLE TO FULLY RECOVER PRIOR TO CONTACTING THE RUNWAY.

Probable Cause and Findings

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

Findings

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

Findings

1. (C) GLIDER LAUNCH/TOW EQUIPMENT - DISCONNECTED

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

2. (F) ALTITUDE - INADEQUATE
3. (C) STALL - INADVERTENT - PILOT IN COMMAND
4. REMEDIAL ACTION - ATTEMPTED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Glider; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/03/1986
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	11022 hours (Total, all aircraft), 302 hours (Total, this make and model), 10702 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SCHWEIZER	Registration:	N5720S
Model/Series:	SGS-2-33 SGS-2-33	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	65
Landing Gear Type:	Hull	Seats:	2
Date/Type of Last Inspection:	02/02/1986, 100 Hour	Certified Max Gross Wt.:	1040 lbs
Time Since Last Inspection:	2 Hours	Engines:	0 Unknown
Airframe Total Time:	1300 Hours	Engine Manufacturer:	NONE
ELT:	Not installed	Engine Model/Series:	NONE
Registered Owner:	CIVIL AIR PATROL, INC.	Rated Power:	
Operator:	CIVIL AIR PATROL, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots / 10 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	27° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1605 PDT	Type of Airspace:	Class G

Airport Information

Airport:	TOLEDO (TDO)	Runway Surface Type:	Asphalt
Airport Elevation:	371 ft	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	5000 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	CANDACE CARRERA	Report Date:	
Additional Participating Persons:	DAVE LEHMAN; SEATTLE, WA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).