



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	PLYMOUTH, Wisconsin	Accident Number:	CHI98LA171
Date & Time:	May 19, 1998, 14:45 Local	Registration:	N97MT
Aircraft:	Stemme S10V	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

At an altitude of 1000 feet above ground level (agl) the pilot started the transition between soaring mode and powered flight mode. When completed the pilot observed that throttle movements did not produce power changes. The pilot said he picked a field for an off-airport landing and initiated a normal gliding approach to the field. Between 100 and 150 feet of the off-field landing site the pilot decided to turn into the wind, which was at a 45-degree crosswind, and the left wing tip contacted the ground in a 20-degree bank. The aircraft has a 75.5' wing span. Post accident investigation showed that there was usable fuel in both of the wing tanks. The engine and the drive train were undamaged from the accident. A test run of the engine showed that the engine started, without hesitation, and throttle response was determined to be normal. Engine controls and indications appeared to be in the normal operation limits. No other discrepancies were found.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the improper in-flight decision of the pilot in command to initiate a turn at a close proximity to the ground. Factors to the accident were the starting procedures not being followed and the inadequate altitude to initiate the engine restart.

Findings

Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: DESCENT - NORMAL

Findings

1. (F) STARTING PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
2. (F) ALTITUDE - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - NORMAL

Occurrence #3: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On May 19, 1998, at 1445 central daylight time, a Stemme S10V, N97MT, piloted by commercial pilot, sustained substantial damage when it impacted the terrain during an off-airport landing. The commercial pilot was unable to transition the motor glider from soaring mode to powered flight mode. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 pleasure flight was not operating on a flight plan. The pilot and one passenger reported no injuries. The local flight departed Sheboygan County Memorial Airport, Sheboygan, Wisconsin, at 1245.

According to the pilot's written statement, he was trying to locate sustaining lift over the Kettle Moraine front hills when it became evident that the aircraft had insufficient glide altitude to make the predetermined landing area. The pilot indicated that this decision was made around 1000 feet above ground level (agl). The pilot initiated the engine restart sequence, but when completed noticed that throttle movements did not produce power changes. The pilot stated he checked both fuel selectors for correct position, checked that the fuel pump & emergency fuel pump were on, and finally reactivated the nose cone opening lever.

The pilot said he picked a field for an off-airport landing and initiated a normal gliding approach to the field. The pilot stated in a telephone conversation, with the Investigator-In-Charge (IIC), "Between 100 and 150 feet of the off-field landing site I decided to turn into the wind, which was at a 45-degree crosswind, and the left wing tip contacted the ground in a 20-degree bank." The pilot stated that the aircraft has a 75.5' wing span.

According to a written statement from an inspector with the Federal Aviation Administration (FAA), the pilot stated that he didn't believe the engine was developing power at the time of the accident. Furthermore the pilot stated that, "he attempted to alter his landing course at too low of an altitude which resulted in the left wing contacting the ground and the subsequent aircraft breakup." The pilot also made the statement that 1000' agl was probably too low of an altitude to safely initiate the engine restart.

Post accident investigation showed that there was usable fuel in both of the wing tanks. The engine and the drive train were undamaged from the accident. Both propeller blades were removed to facilitate a test run of the engine. The test run showed that the engine started, without hesitation, and throttle response was determined to be normal. Engine controls and indications appeared to be in the normal operation limits. No other discrepancies were found.

Pilot Information

Certificate:	Commercial	Age:	64, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	Gyroplane; Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	October 7, 1997
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stemme	Registration:	N97MT
Model/Series:	S10V S10V	Aircraft Category:	Unknown
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14-042M
Landing Gear Type:	Retractable - Tailwheel	Seats:	2
Date/Type of Last Inspection:	December 10, 1997 Annual	Certified Max Gross Wt.:	1880 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	714 Hrs	Engine Manufacturer:	Limbach
ELT:	Installed, not activated	Engine Model/Series:	L2400/ EB1.AD
Registered Owner:	TERRY J. KOHLER	Rated Power:	93 Horsepower
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:	SBM ,749 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	28°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SHEBOYGAN (SBM)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:		Runway Surface Condition:	Dry;Vegetation
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	43.739803,-87.969665(est)

Administrative Information

Investigator In Charge (IIC): Wilson, Stephen

Additional Participating Persons: MIKE MECHA; MILWAUKEE , WI

Original Publish Date: February 15, 2001

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=10889>

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