



National Transportation Safety Board Aviation Accident Data Summary

Location:	Longmont, CO	Accident Number:	CEN12LA655
Date & Time:	09/01/2012, 1130 MDT	Registration:	N898N
Aircraft:	TL ULTRALIGHT SRO STINGSPORT	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

While conducting maneuvers at 2,500 feet, the airplane began to vibrate violently. The pilot aborted the maneuver and retarded the throttle to idle; the engine experienced a total loss of power. The pilot executed a forced landing into a field. After the landing, the pilot and the designated pilot examiner noticed that two of the propeller blades had separated from the propeller hub. An examination of the fractured blades and blade sleeves revealed that blade A likely fractured due to progressive cracking at laminate bonds at the interface between the wood blade and the metal sleeve. The powdery wood observed in the slots and at the root end of the blade shank were indicative of rubbing wood as the cracks progressed. The blade B fracture was likely secondary and occurred due to the vibrations associated with the imbalance created by the blade A fracture and subsequent separation. The propeller log indicated that manufacturer-specified visual inspections and torque checks were not conducted at the specified interval of 150 hours but at intervals of about 203, 320, and 250 hours. The delayed visual inspections reduced the likelihood of detecting the cracks and the delayed torque checks might have contributed to crack growth in the blade.

Flight Events

Maneuvering - Powerplant sys/comp malf/fail

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the wood propeller blades in flight. Contributing to the accident was the owner/operator's failure to complete required inspections on the propeller within the specified interval, which reduced the likelihood of detecting the cracks and may have contributed to the crack growth.

Findings

Aircraft-Aircraft propeller/rotor-Propeller system-Propeller blade section-Failure - C
Aircraft-Aircraft propeller/rotor-Propeller system-Propeller blade section-Fatigue/wear/corrosion - F
Aircraft-Aircraft propeller/rotor-Propeller system-Propeller blade section-Inadequate inspection - F
Personnel issues-Task performance-Inspection-Scheduled/routine inspection-Pilot - F

Pilot Information

Certificate:	Private	Age:	43
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None

Flight Time:

Check Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Instrument Rating(s):	
Other Aircraft Rating(s):		Instructor Rating(s):	Airplane Single-engine

Flight Time:

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	TL ULTRALIGHT SRO	Registration:	N898N
Model/Series:	STINGSPORT	Engines:	1 Reciprocating
Operator:	STING4FUN LLC	Engine Manufacturer:	Rotax
Air Carrier Operating Certificate:	None	Engine Model/Series:	

Flight Conducted Under: Part 91: General Aviation - Personal

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KEIK	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	3 knots, 20°
Temperature:	29°C / 3°C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ERIE, CO (EIK)	Destination:	ERIE, CO (EIK)

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Michael J Folkerts	Adopted Date:	04/10/2014
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=85136		

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