



Aviation Investigation Final Report

Location:	Painton, Missouri	Accident Number:	GAA18CA518
Date & Time:	August 19, 2018, 13:51 Local	Registration:	N107SJ
Aircraft:	Rans RANS S6S	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during landing, the airplane bounced and then landed hard in a nose-down attitude. The propeller stuck the ground, and then the airplane slid and came to rest nose down.

The airplane sustained substantial damage to the engine truss and mount.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's failure to maintain the proper pitch attitude during landing, which resulted in a bounced, hard landing.

Findings

Aircraft	Pitch control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-flare/touchdown	Abnormal runway contact
Landing-flare/touchdown	Hard landing (Defining event)
Landing-flare/touchdown	Collision with terr/obj (non-CFIT)
Landing-flare/touchdown	Nose over/nose down

Pilot Information

Certificate:	Sport Pilot	Age:	73,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 97 hours (Total, all aircraft), 19 hours (Total, this make and model), 15 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Rans	Registration:	N107SJ
Model/Series:	RANS S6S SUPERSIX	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	07041601
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	September 1, 2017 Condition	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	422 Hrs at time of accident	Engine Manufacturer:	Rotax
ELT:	C126 installed, not activated	Engine Model/Series:	912ULS
Registered Owner:		Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCGI,352 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	23:53 Local	Direction from Accident Site:	52°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.86 inches Hg	Temperature/Dew Point:	27°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Dexter, MO (DXE)	Type of Flight Plan Filed:	None
Destination:	Painton, MO (PVT)	Type of Clearance:	None
Departure Time:	13:15 Local	Type of Airspace:	Class G

Airport Information

Airport:	PVT PVT	Runway Surface Type:	Grass/turf
Airport Elevation:	300 ft msl	Runway Surface Condition:	Dry;Vegetation
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	2500 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	37.086387,-89.793891(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Stephen Ragin; FAA; St. Louis, MO
Original Publish Date:	March 20, 2020
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98185

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](#).