



Aviation Investigation Final Report

Location:	St. Augustine, Florida	Accident Number:	GAA16CA502
Date & Time:	August 24, 2016, 15:00 Local	Registration:	N481SL
Aircraft:	ARION SKYS OPEN SPORT AVIATION LIGHTNING	Aircraft Damage:	Substantial
Defining Event:	Nose over/nose down	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

According to the pilot of the experimental light-sport airplane, following a personal flight, he made a straight-in approach to runway 13. He recalled that the tower reported the wind as 070° at 12 knots. During the approach, the airplane encountered "convective turbulence," but he established a stabilized approach over the runway centerline. He remarked that, about 5 ft above the runway, the airplane encountered what he estimated to be a 20-knot or greater wind gust. He reported that the airplane ballooned and touched down on the nosewheel, the propeller struck the ground, and he used differential braking to stop the airplane on the runway. The nose landing gear separated from the airplane, and the engine mounts and the spar box sustained substantial damage.

The METAR at the accident airport indicated that, at the time of the accident, the wind was 040° true at 12 knots. There were no METARs throughout the day at the accident airport that indicated wind gusts.

The pilot reported that there were no mechanical failures or anomalies with the airframe or engine that would have prevented normal operation.

Probable Cause and Findings

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

The pilot's improper landing flare, which resulted in a hard landing.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Landing flare - Not attained/maintained
Personnel issues	Use of available resources - Pilot

Factual Information

History of Flight

Landing-flare/touchdown	Other weather encounter
Landing-flare/touchdown	Nose over/nose down (Defining event)

Pilot Information

Certificate:	Private	Age:	70, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None Without waivers/limitations	Last FAA Medical Exam:	March 18, 2009
Occupational Pilot:	No	Last Flight Review or Equivalent:	June 5, 2015
Flight Time:	(Estimated) 402 hours (Total, all aircraft), 9 hours (Total, this make and model), 300 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ARION SKYS OPEN SPORT AVIATION	Registration:	N481SL
Model/Series:	LIGHTNING	Aircraft Category:	Airplane
Year of Manufacture:	2011	Amateur Built:	Yes
Airworthiness Certificate:	Experimental light sport (Special)	Serial Number:	121
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 25, 2016 Condition	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	250 Hrs as of last inspection	Engine Manufacturer:	JABIRU
ELT:	C126 installed, not activated	Engine Model/Series:	3300
Registered Owner:	On file	Rated Power:	120 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:	KSGJ,10 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	18:58 Local	Direction from Accident Site:	235°
Lowest Cloud Condition:	Few / 2900 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	31°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Shelbyville, TN (SYI)	Type of Flight Plan Filed:	VFR
Destination:	St. Augustine, FL (SGJ)	Type of Clearance:	VFR
Departure Time:	10:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	NORTHEAST FLORIDA RGNL SGJ	Runway Surface Type:	Asphalt
Airport Elevation:	9 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	8002 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	29.959167,-81.339721(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Ric Riccardi; FAA; Orlando, FL
Original Publish Date:	April 10, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=94062

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