National Transportation Safety Board
Aviation Accident Data Summary

Location:	St. Petersburg, FL	**Accident Number:**	ERA12FA491
Date & Time:	08/01/2012, 1400 EDT	**Registration:**	N2761K
Aircraft:	SILVAIRE LUSCOMBE 8A	**Injuries:**	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The sport pilot had recently purchased the accident airplane and was working with a flight instructor for familiarization because he had not flown during the past 30 years. The flight instructor stated that he and the pilot had flown seven or eight flights together before the accident flight and that the pilot had previously flown about 5 hours with another flight instructor. During the accident flight, the pilots took off from a runway intersection. The flight instructor stated that the engine seemed to be producing full power until the airplane reached an altitude of about 100 feet above the ground. At that point, the flight instructor noted an audible loss of rpm that was confirmed by the tachometer. The airplane began to descend, the pilot applied carburetor heat, and the flight instructor assumed control of the airplane. With insufficient runway remaining on which to land and obstacles at the end of the runway that made a straight-ahead off-airport landing hazardous, the flight instructor attempted to maneuver toward the ramp area adjacent to the runway. The airplane subsequently stalled, impacted the runway in a nose-down attitude, and came to rest inverted.

Postaccident examination of the airplane revealed no evidence of any preimpact mechanical failures or anomalies that would have precluded normal operation. The flight instructor stated that the takeoff was initiated with the carburetor heat off, despite a placard in the airplane requiring the use of carburetor heat during takeoff and landing. Although the weather conditions at the time of takeoff were conducive to the formation of carburetor ice at glide and cruise power at the time of the accident, it was not possible to determine whether carburetor ice was a factor in the accident. Weight and balance calculations revealed that the airplane was loaded about 68 pounds over its maximum allowable gross weight, and calculated density altitude at the airport about the time of the accident was more than 2,000 feet. Despite these factors, both of which would have adversely affected both the distance required for takeoff and the airplane's rate of climb once airborne, the pilots elected to conduct an intersection takeoff, which reduced the available runway takeoff distance by nearly 20% and also reduced the diversionary options available in the event of a loss of engine power.

Flight Events

Initial climb - Loss of engine power (partial)
Initial climb - Aerodynamic stall/spin
Initial climb - Loss of control in flight
Uncontrolled descent - Collision with terr/obj (non-CFIT)

Probable Cause

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

The flight instructor's and the pilot's failure to maintain airspeed after a partial loss of engine power after takeoff for reasons that could not be determined during postaccident examination, which resulted in an aerodynamic stall and loss of airplane control. Contributing to the accident were the pilots' decisions to operate the airplane above its maximum allowable gross weight and to perform an

intersection takeoff.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Not attained/maintained - C
Aircraft-Aircraft oper/perf/capability-Aircraft capability-Maximum weight-Capability exceeded - F
Personnel issues-Action/decision-Action-Lack of action-Instructor/check pilot - C
Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Flight crew - F
Environmental issues-Conditions/weather/phenomena-Temp/humidity/pressure-High density altitude-Effect on operation
Not determined-Not determined-(general)-(general)-Unknown/Not determined

Pilot Information

Certificate:	Private	**Age:**	79
Airplane Rating(s):	Single-engine Land	**Instrument Rating(s):**	Airplane
Other Aircraft Rating(s):	None	**Instructor Rating(s):**	None
Flight Time:			

Flight Instructor Information

Certificate:	Flight Instructor; Commercial; Private	**Age:**	37
Airplane Rating(s):	Multi-engine Land; Multi-engine Sea; Single-engine Land; Single-engine Sea	**Instrument Rating(s):**	Airplane
Other Aircraft Rating(s):	None	**Instructor Rating(s):**	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
Flight Time:	(Estimated) 940 hours (Total, all aircraft), 0 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	SILVAIRE	**Registration:**	N2761K
Model/Series:	LUSCOMBE 8A	**Engines:**	1 Reciprocating
Operator:	On file	**Engine Manufacturer:**	CONT MOTOR
Air Carrier Operating Certificate:	None	**Engine Model/Series:**	A&C65 SERIES
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KSPG, 7 ft msl	**Weather Information Source:**	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	**Lowest Ceiling:**	None
Condition of Light:	Day	**Wind Speed/Gusts, Direction:**	8 knots, 267°
Temperature:	30°C / 25°C	**Visibility**	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	St. Petersburg, FL (KSPG)	**Destination:**	St. Petersburg, FL (KSPG)

Airport Information

Airport:	Albert Whitted Airport (KSPG)	**Runway Surface Type:**	Asphalt
Runway Used:	25	**Runway Surface Condition:**	Dry
Runway Length/Width:	3677 ft / 75 ft		

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None

Administrative Information

Investigator In Charge (IIC):	Allison N Diaz	**Adopted Date:**	01/13/2014
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=84532		