



National Transportation Safety Board Aviation Accident Factual Report

Location:	Blythe, CA	Accident Number:	GAA16CA411
Date & Time:	08/01/2016, 0045 PDT	Registration:	N6728X
Aircraft:	BEECH F33	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

The pilot was conducting a night, visual meteorological conditions flight from a rural desert airport, and reported that prior to the flight, she did a weight and balance, checked the temperature, and did performance calculations.

The pilot reported that after rotation, the airplane was not producing "sufficient power and not climbing as anticipated" and the stall warning horn was audible. She lowered the airplane's nose, and the stall warning horn silenced. The pilot further reported that she heard "scraping" [ground impact] against the airplane, but she could not see the terrain due to the night conditions. Subsequently, the airplane impacted the ground off of the airport, which resulted in substantial damage to the fuselage.

In a follow up email conversation with the pilot's attorney, the attorney said that the pilot reported that the engine was producing power at the time that the aerodynamic stall warning horn was audible and just before impact, but noted that the power was not sufficient.

A photograph of the accident airplane provided by the FAA inspector that responded to the accident, showed all three blades exhibited tip curl, torsional twisting and S-bending, consistent with the engine producing power at the time of impact.

The airplane performance and weight and balance calculations that the pilot performed prior to the accident flight were request by the National Transportation Safety Board investigator-in-charge (IIC), but were not provided.

The pilot stated she was unaware of any preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

It is likely that the pilot exceeded the critical angle of attack during takeoff at night resulting in an aerodynamic stall.

The Federal Aviation Administration has published the Airplane Flying Handbook FAA-H-8083-3A (2004). This handbook discusses aerodynamic stalls and states in part:

The key to stall awareness is the pilot's ability to visualize the wing's angle of attack in any particular circumstance, and thereby be able to estimate his/her margin of safety above stall. This is a learned skill that must be acquired early in flight training and carried through the pilot's entire flying career. The pilot must understand and appreciate factors such as airspeed, pitch attitude, load factor, relative wind, power setting, and aircraft configuration in order to develop a reasonably accurate mental picture of the wing's angle of attack at any particular time. It is essential to flight safety that a pilot takes into consideration this visualization of the wing's angle of attack prior to entering any flight maneuver.

Stall accidents usually result from an inadvertent stall at a low altitude in which a recovery was not accomplished prior to contact with the surface.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	60, Female
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last Medical Exam:	11/16/2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	12/09/2015
Flight Time:	(Estimated) 2329.5 hours (Total, all aircraft), 513 hours (Total, this make and model), 2132.6 hours (Pilot In Command, all aircraft), 105.7 hours (Last 90 days, all aircraft), 33.3 hours (Last 30 days, all aircraft), 1.4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BEECH	Registration:	N6728X
Model/Series:	F33 A	Aircraft Category:	Airplane
Year of Manufacture:	1983	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	CE-1023
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	12/12/2015, Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1951.39 Hours	Engine Manufacturer:	Continental
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	IO-520BB
Registered Owner:	On file	Rated Power:	285 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KBLH, 392 ft msl	Observation Time:	0752 UTC
Distance from Accident Site:	1 Nautical Miles	Condition of Light:	Night
Direction from Accident Site:	169°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	32° C / 22° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	7 knots, 200°	Visibility (RVR):	
Altimeter Setting:	29.81 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Blythe, CA (BLH)	Type of Flight Plan Filed:	None
Destination:	LAS VEGAS, NV (HND)	Type of Clearance:	None
Departure Time:	1245 PDT	Type of Airspace:	Class E

Airport Information

Airport:	BLYTHE (BLH)	Runway Surface Type:	Asphalt
Airport Elevation:	399 ft	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	5800 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None		

Administrative Information

Investigator In Charge (IIC):	Jackie L Vanover
Additional Participating Persons:	Patrick W Gates; FAA; Riverside, CA
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93750