



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Angel Fire, NM	<b>Accident Number:</b>	CEN13FA183
<b>Date &amp; Time:</b>	03/03/2013, 1320 MST	<b>Registration:</b>	N3484X
<b>Aircraft:</b>	MOONEY M20E	<b>Injuries:</b>	4 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

Before takeoff, strong, gusting wind from the west was present, so a fixed-base operator (FBO) employee asked the pilot about his intent to fly. He stated that the pilot seemed "confident" about his ability to fly the airplane and that he was not concerned about the wind. As the airplane departed, the reported wind was 33 knots gusting to 47 knots. The FBO employee stated that he saw the airplane "crab" into the wind about 40 degrees right of the runway's heading. The airplane rose and fell repeatedly as its wings rocked. When the airplane was between 75 and 150 feet above the ground, the left wing dropped, and the airplane then rolled left, descended inverted, and impacted terrain in a nose-down attitude. A postimpact examination of the airframe and engine revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation. A weather research and forecasting model indicated that, at the time of the accident, the accident site was located within a turbulent mountain-wave environment, with low-level windshear, updrafts and downdrafts, downslope winds, and an environment conducive for rotors (that is, a violent rolling wave of air occurring in lee of a mountain or hill in which air rotates about a horizontal axis). The pilot had no prior experience flying out of the accident airport and it was the highest elevation airport he had ever used. In addition, he had limited experience flying in mountainous areas.

## Flight Events

Takeoff - Other weather encounter  
Takeoff - Loss of control in flight

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of control while flying in a turbulent mountain-wave environment. Contributing to the accident was the pilot's overconfidence in his ability to safely pilot the airplane in gusting wind conditions and his lack of experience operating in mountainous areas.

## Findings

Personnel issues-Psychological-Personality/attitude-Self confidence-Pilot - F  
Personnel issues-Experience/knowledge-Experience/qualifications-(general)-Pilot - F  
Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C  
Environmental issues-Conditions/weather/phenomena-Turbulence-Terrain induced turbulence-Effect on operation - C  
Environmental issues-Conditions/weather/phenomena-Wind-(general)-Effect on operation - C  
Environmental issues-Physical environment-Terrain-Mountainous/hilly terrain-Effect on operation

## Pilot Information

Certificate:	Private	Age:	33
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	(Estimated) 459 hours (Total, all aircraft), 384 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

Aircraft Manufacturer:	MOONEY	Registration:	N3484X
Model/Series:	M20E	Engines:	1 Reciprocating
Operator:	VERHALEN FLYERS LLC	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:	None	Engine Model/Series:	IO-360-A1A
Flight Conducted Under:	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

Observation Facility, Elevation:	KAXX, 8380 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:	33 knots/ 47 knots, 250°
Temperature:	8° C / -8° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Angel Fire, NM (KAXX)	Destination:	Dallas, TX

## Airport Information

Airport:	Angel Fire Airport (KAXX)	Runway Surface Type:	Asphalt
Runway Used:	17	Runway Surface Condition:	Dry
Runway Length/Width:	8900 ft / 100 ft		

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	3 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None

## Administrative Information

Investigator In Charge (IIC):	Jason T Aguilera	Adopted Date:	01/30/2014
Investigation Docket:	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86341">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86341</a>		

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