



# Aviation Investigation Final Report

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<b>Location:</b>	Sanford, North Carolina	<b>Accident Number:</b>	GAA15CA272
<b>Date &amp; Time:</b>	September 19, 2015, 13:00 Local	<b>Registration:</b>	N635DC
<b>Aircraft:</b>	DIAMOND AIRCRAFT IND INC DA 20 C1	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The student pilot reported that during a solo soft field takeoff the tail of the airplane impacted the ground. He lowered the nose, and as the airspeed increased initiated rotation. After liftoff, the airplane drifted to the left of the runway, descended, and impacted the bottom of a ditch. The airplane came to a stop in a ramp parking area.

The student pilot reported there were no pre-impact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation. The airplane sustained substantial damage to the fuselage.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilots failure to maintain a climb after takeoff, which resulted in an impact with terrain.

## Findings

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<b>Personnel issues</b>	Aircraft control - Student/instructed pilot
<b>Aircraft</b>	Yaw control - Not attained/maintained
<b>Aircraft</b>	Climb rate - Not attained/maintained

## Factual Information

### History of Flight

<b>Takeoff</b>	Tailstrike
<b>Takeoff</b>	Loss of control in flight (Defining event)
<b>Takeoff</b>	Collision with terr/obj (non-CFIT)

### Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	41
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	September 25, 2014
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 33 hours (Total, all aircraft), 25 hours (Total, this make and model), 8 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	DIAMOND AIRCRAFT IND INC	<b>Registration:</b>	N635DC
<b>Model/Series:</b>	DA 20 C1 C1	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2001	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Utility	<b>Serial Number:</b>	C0135
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	May 28, 2015 Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3181.7 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	IO-240-B
<b>Registered Owner:</b>	POOLE TIMOTHY F JR/ POOLE KAREN A.	<b>Rated Power:</b>	125 Horsepower
<b>Operator:</b>	DILLIONS AVIATION	<b>Operating Certificate(s) Held:</b>	Pilot school (141)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KTTA, 247 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	16:55 Local	<b>Direction from Accident Site:</b>	39°
<b>Lowest Cloud Condition:</b>	Scattered / 4000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	30°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sanford, NC (TTA )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Sanford, NC (TTA )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	RALEIGH EXEC JETPORT AT SANFOR TTA	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	246 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	03	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	6500 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	35.577499,-79.105552(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Vanover, Jackie
<b>Additional Participating Persons:</b>	Richard Kiang; FAA; Greensboro, NC
<b>Original Publish Date:</b>	November 5, 2015
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=92040">https://data.nts.gov/Docket?ProjectID=92040</a>

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