

# **Aviation Investigation Final Report**

Location:	Chandler, Arizona	Accident Number:	LAX06CA203
Date & Time:	June 10, 2006, 09:15 Local	Registration:	N280AM
Aircraft:	Aircraft Mfg & Dev. Co. (AMD) CH2000	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

#### Analysis

The airplane collided with terrain during the student pilot's attempted takeoff. During a softfield takeoff with the airplane about 10 to 15 feet above ground level (agl), the student pilot increased the pitch attitude by raising the nose. The airplane yawed about 15 degrees to the right of the runway centerline and the certified flight instructor (CFI) momentarily waited for the student pilot to make corrective action. The airplane yawed an additional 15 degrees to the right before the CFI assumed the airplane controls. He applied left rudder and lowered the nose in an effort to maneuver the airplane back to the runway. The left wing and the tail impacted the ground, which the CFI believed was the main landing gear. The CFI continued the initial takeoff climb and shortly thereafter noticed the damage to the left wing. He returned to the airport for an uneventful landing. The CFI noted no preimpact mechanical malfunctions or failures with the airframe or engine that would have precluded normal operation.

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot's failure to maintain directional control and the instructor's delayed remedial actions, which resulted in a collision with terrain during the initial takeoff climb. The instructor's inadequate supervision of the flight was also causal.

#### **Findings**

Occurrence #1: LOSS OF CONTROL - IN FLIGHT Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

- 1. SOFT FIELD TAKEOFF/PROCEDURE ATTEMPTED DUAL STUDENT
- 2. (C) DIRECTIONAL CONTROL NOT MAINTAINED DUAL STUDENT
- 3. (C) REMEDIAL ACTION DELAYED PILOT IN COMMAND(CFI)
- 4. (C) SUPERVISION INADEQUATE PILOT IN COMMAND(CFI)

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

5. TERRAIN CONDITION - GROUND

#### **Factual Information**

The airplane collided with terrain during a soft-field takeoff. In a written statement, the certified flight instructor (CFI) reported that the purpose of the flight was for the student pilot to practice soft-field takeoffs and landings, which he had briefed the student for prior to departure. After rotation, with the airplane about 10 to 15 feet above ground level (agl), the student pilot raised the nose of the airplane high, akin to a short-field takeoff configuration. The airplane yawed about 15 degrees to the right of the runway centerline and the CFI momentarily waited for the student pilot to make corrective action. The CFI directed the student pilot to input left rudder, but the airplane yawed an additional 15 degrees to the right.

The CFI further stated that he assumed the airplane controls. He applied left rudder, and lowered the nose in an effort to maneuver the airplane back to the runway. The left wing contacted the ground about 5 feet from the right edge of the runway and the tail subsequently impacted a grassy median to the right of the runway. The CFI believed that the airplane's main landing gear had contacted the ground and continued with the initial takeoff climb. Shortly thereafter, the CFI and student noticed the damage to the left wing and returned to the airport for an uneventful landing.

The CFI noted no preimpact mechanical malfunctions or failures with the airplane or engine that would have precluded normal operation.

Certificate:	Commercial; Flight instructor	Age:	49,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2	Last FAA Medical Exam:	May 1, 2006
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	856 hours (Total, all aircraft), 67 hours (Total, this make and model), 47 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft)		

#### **Flight instructor Information**

### Student pilot Information

Certificate:	Student	Age:	55,Male
Airplane Rating(s):	None	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 3	Last FAA Medical Exam:	April 1, 2006
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	22 hours (Total, all aircraft), 20 hours (Total, this make and model), 22 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Aircraft Mfg & Dev. Co. (AMD)	Registration:	N280AM
Model/Series:	CH2000	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20-1041
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	0-235-N2C
Registered Owner:	Outside the Box Aviation LLC	Rated Power:	
Operator:	League Of Extraordinary Aviators, Inc.	Operating Certificate(s) Held:	None

#### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
<b>Observation Facility, Elevation:</b>	CHD,1243 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	09:48 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:		Visibility	25 miles
Lowest Ceiling:	Broken / 1500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.82 inches Hg	Temperature/Dew Point:	33°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Chandler, AZ (P19 )	Type of Flight Plan Filed:	None
Destination:	Chandler, AZ (P19 )	Type of Clearance:	None
Departure Time:		Type of Airspace:	

## **Airport Information**

Airport:	Stellar Airpark P19	Runway Surface Type:	Asphalt
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	3913 ft / 60 ft	VFR Approach/Landing:	

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	2 None	Latitude, Longitude:	33.29861,-111.915275

#### **Administrative Information**

Investigator In Charge (IIC):	Keliher, Zoe
Additional Participating Persons:	Chris Clark; Federal Aviation Administration; Scottsdale, AZ
Original Publish Date:	October 3, 2006
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=63916

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available <u>here</u>.