



National Transportation Safety Board Aviation Accident Final Report

Location:	HILLSBORO, OR	Accident Number:	SEA98LA059
Date & Time:	04/01/1998, 1110 PST	Registration:	N1310A
Aircraft:	Beech 35-C33	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

While practicing soft-field takeoffs in a single-control throw-over yoke aircraft, the student pulled the aircraft off the runway prior to attaining enough speed to remain airborne. Immediately after becoming airborne, the aircraft banked sharply to the left, dropped onto the runway, and bounced back into the air. According to the instructor pilot, when he saw that the aircraft was going to lift off prematurely, he commanded the student to lower the nose. But, the student did not lower the nose enough, and the instructor did not apply forward pressure to the central control pedestal to keep the aircraft from lifting off too early. It was later discovered that the left wing had impacted the asphalt surface when the aircraft dropped back onto the runway.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's inadequate supervision and the dual student's premature lift off which resulted in inadequate airspeed, a stall, and collision with the ground.

Findings

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

Findings

1. (C) LIFT-OFF - PREMATURE - DUAL STUDENT
 2. AIRSPEED - INADEQUATE - DUAL STUDENT
 3. STALL
 4. REMEDIAL ACTION - INADEQUATE - PILOT IN COMMAND(CFI)
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - RUNWAY

Factual Information

On April 1, 1998, approximately 1110 Pacific standard time, the left wing of a Beech 35-C33, N1310A, impacted the runway immediately after a premature liftoff at Portland-Hillsboro Airport, Hillsboro, Oregon. The certified flight instructor and his student, who holds a private pilot certificate, were not injured, but the aircraft, which was owned and operated by Tektronix Flying Club, sustained substantial damage. The 14 CFR Part 91 local instructional flight was being operated in visual meteorological conditions. No flight plan had been filed, and there was no report of an ELT transmission.

According to the FAA inspector who talked to the instructor, while practicing soft-field takeoffs, the student pulled the aircraft into the air prior to attaining enough speed to remain airborne. The aircraft almost immediately banked sharply to the left, and dropped back onto the runway hard enough to be "jolted" back into the air. The takeoff was then continued, followed by an immediate return to inspect for damage.

According to the instructor pilot, when the aircraft, which was configured with a single throw-over control yoke, began lifting off, he commanded the student to "drop the/your nose." The student did not drop the nose enough to avoid the premature lift-off, and the instructor did not attempt to apply forward pressure on the central control pedestal to keep the aircraft from lifting off too early.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	62, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/05/1998
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1050 hours (Total, all aircraft), 320 hours (Total, this make and model), 886 hours (Pilot In Command, all aircraft), 21 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N1310A
Model/Series:	35-C33 35-C33	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	CD-1105
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	01/31/1998, Annual	Certified Max Gross Wt.:	3150 lbs
Time Since Last Inspection:	47 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6902 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-470K
Registered Owner:	TEKTRONIX FLYING CLUB	Rated Power:	225 hp
Operator:	TEKTRONIX FLYING CLUB	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Light and Variable /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	16 °C
Precipitation and Obscuration:			
Departure Point:	(HIO)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	1110 PST	Type of Airspace:	Class D

Airport Information

Airport:	PORTLAND-HILLSBORO (HIO)	Runway Surface Type:	Asphalt
Airport Elevation:	200 ft	Runway Surface Condition:	Dry
Runway Used:	30	IFR Approach:	
Runway Length/Width:	6600 ft / 100 ft	VFR Approach/Landing:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	ORRIN K ANDERSON	Report Date:	02/11/2000
Additional Participating Persons:	ALLEN SHELBY		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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