Aviation Investigation Final Report

Location:	SONOMA, California	**Accident Number:**	LAX02LA100
Date & Time:	March 3, 2002, 15:00 Local	**Registration:**	N17438
Aircraft:	Aeronca C-3	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During the takeoff climb out, the airplane veered to the right and nose dived into a junkyard. A passenger who held a student pilot certificate, was invited by the owner to fly the airplane. The owner placed the student in the left seat, which was the side that had the flight control stick, rudder pedals, and brakes. The owner sat in the right seat, which did not have a flight control stick but did have rudder pedals. The student said there were no problems encountered during takeoff. Once they had climbed over the tress, the left wing dropped abruptly. A couple of seconds after she corrected the wings to a straight and level attitude, the pilot-in-command reached over to her side and took over the flight controls. The airplane banked and fell off to the right and struck the ground in a nose-down, left wing low attitude. Initial and follow-up examinations of the airplane and powerplant did not expose any preimpact mechanical discrepancies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's excessive remedial control inputs in response to a passenger's control inputs, which led to a failure to maintain an adequate airspeed and an inadvertent stall/mush. The pilot's inadequate preflight decision to allow a student pilot to occupy the only seat with full flight controls was a factor in the accident.

Findings

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

Findings
1. (F) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. (F) FLIGHT CONTROLS - USED - PILOT PASSENGER
3. (C) REMEDIAL ACTION - EXCESSIVE - PILOT IN COMMAND
4. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
5. STALL/MUSH - ENCOUNTERED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
6. TERRAIN CONDITION - CONGESTED/CONFINED AREA

Factual Information

On March 3, 2002, at 1500 Pacific standard time, an Aeronca C-3, N17438, impacted terrain in a junkyard while in an uncontrolled descent shortly after takeoff from the Sonoma Skypark Airport, Sonoma, California. The airplane was owned and operated by the private pilot under the provisions of 14 CFR Part 91. The airplane sustained substantial damage. The pilot received minor injuries, and a passenger who held a student pilot certificate was seriously injured. Visual meteorological conditions prevailed for the local area flight, and no flight plan had been filed.

The pilot informed emergency medical services (EMS) personnel that during the takeoff climb he felt something "snap" on the control stick. The airplane veered sharply to the left. He attempted to correct back to the right, but was unable to do so. The airplane nose dived to the ground with the left wing low.

In a written statement to the National Transportation Safety Board, the student pilot indicated that she had been at the airport that morning to do some flying in her airplane. Later in the day she went down to the hangar that housed the accident airplane. The owner and another person were getting the airplane ready to fly. The other person was going to fly it around the area. While the airplane was out flying, the owner asked her if she would "like to solo the C3 next;" she replied with a negative response. The owner asked her a couple of more times if she wanted to fly the airplane. He also told her that it flew just like her own airplane, and she wouldn't have a problem flying it. She stated that she said she would fly it as long as he went up with her first. When the airplane returned, the owner had her get in the airplane and taxi around to get used to the rudder pedals. After she was done taxiing the airplane, she took it over to the fuel pit to refuel it. She then called her dad and asked if she could solo the C-3; she told him that she was going to fly with the owner first. After she fueled the airplane, they got into the airplane and started to taxi to the runway.

The student pilot reported that the pilot had her sit in the left seat, the side that had a control stick, rudder pedals, and brakes. The right side, where the owner was seated, had only rudder pedals. She was unsure whether there were brakes on his side.

Once on the runway, she advanced the throttle with her right hand and held the control stick with her left hand. She indicated that she didn't know the airplane, so if she had been doing something wrong she figured the owner would have said something. She encountered no difficulties during the takeoff. Once they had climbed over the trees, she stated that the "left wing dropped abruptly." She corrected it "and got the plane back straight [and] level. Or the wings level [at least]." She stated that the owner reached over and grabbed the controls. The student pilot let go of the flight controls, and recalled losing altitude and seeing a house go by.

A witness to the accident stated that he saw the airplane veer to the left and then "went right and nose [dived] into the ground."

Another witness traveling on Highway 37 reported that the engine was not "sputtering." She was unfamiliar with airplanes, but stated that the engine did not sound like anything was wrong with it. She did note that the airplane was "very low."

A Federal Aviation Administration (FAA) inspector examined the airplane. He established flight control continuity, and the control linkages appeared attached and intact. He examined the engine. The spark plugs appeared normal. The inspector manually rotated the propeller; he observed valve train movement, and obtained thumb compression on the two cylinders. The magneto remained attached to the engine and produced spark on one lead. He removed the magneto, manually rotated it, and it produced spark at all of the terminals. He observed no mechanical discrepancies.

Pilot Information

Certificate:	Private	**Age:**	55,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	April 26, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	December 31, 2000
Flight Time:	6000 hours (Total, all aircraft), 50 hours (Total, this make and model), 6000 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	**Age:**	17,Female
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Unknown Unknown	**Last FAA Medical Exam:**	
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Aeronca	**Registration:**	N17438
Model/Series:	C-3	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	A-747
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	May 15, 2001 Annual	**Certified Max Gross Wt.:**	900 lbs
Time Since Last Inspection:	5 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1401 Hrs as of last inspection	**Engine Manufacturer:**	Aeronca
ELT:		**Engine Model/Series:**	E-113
Registered Owner:	WILLIAM FIELD	**Rated Power:**	37 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	APC,33 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:	14:54 Local	**Direction from Accident Site:**	75°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	100°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.3 inches Hg	**Temperature/Dew Point:**	19°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SONOMA, CA (0Q9)	**Type of Flight Plan Filed:**	None
Destination:	SONOMA, CA (0Q9)	**Type of Clearance:**	None
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	SONOMA SKYPARK AIRPORT 0Q9	**Runway Surface Type:**	Asphalt
Airport Elevation:	20 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	26	**IFR Approach:**	None
Runway Length/Width:	2480 ft / 40 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 1 Minor	**Latitude, Longitude:**	38.257778,-122.434448

Administrative Information

Investigator In Charge (IIC):	Cornejo, T.
Additional Participating Persons:	MIKE BECKER; FEDERAL AVIATION ADMINISTRATION; OAKLAND, CA
Original Publish Date:	June 2, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=54304