Aviation Investigation Final Report

Location:	BOULDER CITY, Nevada	**Accident Number:**	LAX00LA080
Date & Time:	January 23, 2000, 11:30 Local	**Registration:**	N5801X
Aircraft:	Cessna 310F	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	4 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight departed for a local area instructional flight with a dual student and passengers onboard. The student pilot was on final approach to the runway, and was approximately 50-feet above ground level, when the flight instructor said he noticed the airplane was descending much too fast. He told the student pilot to add some power but the student pilot added power only to the right engine. The flight instructor took over the controls as the airplane yawed off the runway approximately a wingspan's length. The instructor said he pulled the airplane back to about 20 feet above ground level and crabbed it and flew it back down to touchdown on the runway. A post flight inspection of the airplane revealed wrinkles in the left wing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The dual student's improper use of the throttles; the flight instructor's inadequate supervision; and the delayed remedial action by the flight instructor. Factors in the accident were the directional control and proper alignment not maintained by the dual student during the landing.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING

Findings
1. (C) THROTTLE/POWER CONTROL - IMPROPER USE OF - DUAL STUDENT

2. (F) PROPER ALIGNMENT - NOT MAINTAINED - DUAL STUDENT
3. (F) DISTANCE - NOT MAINTAINED - DUAL STUDENT
4. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND(CFI)
5. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

Factual Information

On January 23, 2000, at 1130 hours Pacific standard time, a Cessna 310F, N5801X, made a hard landing on runway 27L at the Boulder City, Nevada, airport. The airplane sustained substantial damage. The flight instructor, student pilot, and two passengers were not injured. The airplane was operated by De Voit, Inc., as an instructional flight, under 14 CFR Part 91 when the accident occurred. The flight originated at Boulder City airport approximately 30 minutes prior to the accident. Visual meteorological conditions prevailed at the time of the accident and a flight plan was not filed.

According to the flight instructor, the student pilot was on final approach to the runway, and was approximately 50 feet above ground level (agl) when the flight instructor noticed that the airplane was descending much too fast. He said he told the student pilot to add power, but the student pilot only added power to the right engine. He said he noticed the airplane yaw to the left and then he took over the controls. The flight instructor said that the airplane was displaced at least a wingspan's length from the runway edge by the time he recovered the airplane. He said that he pulled the airplane back up to about 20 feet above ground level (agl), added power to the left engine, and banked the airplane to the right. He then crabbed it and flew back to the runway. He estimated that he landed the airplane about 2/3 of the way down the runway, but touched down prior to the intersection of runway 33.

The flight instructor told investigators that he didn't feel the wing touch anything as they landed on the runway. He noticed the wrinkles in the left wing as they taxied off the runway. He estimated that they could have been approximately one wingspan off the runway when they landed.

The flight instructor said that he had given the student pilot more than 40 hours dual time in this airplane.

The student pilot stated that they preflighted the airplane and took the airplane over to the fuel pumps and filled the tip tanks and added 5-gallons to each auxiliary tank. He said that they circled the Boulder Dam and proceeded toward Lake Mead and then proceeded back toward the Boulder City airport. They entered the pattern using a right downwind pattern for runway 27L. He set the flaps at 15 degrees during the downwind leg, and stated he was high on base. He extended through the centerline of the runway and then corrected back for lineup on final, as he was high.

The student pilot said he was shooting for an extended threshold and crossed the threshold at 30-35 feet agl. At 10-15 feet agl, he said the stall warning horn came on and he added power to level off, and then eased the power back and did not pull the throttle back on the right engine, only the left. He said this caused the right wing to rise and the airplane yawed left. He

said he tried to correct by pulling the yoke back with large inputs for right rudder and right aileron, but it had no effect. He said he yelled "Gene," and then the flight instructor took the controls of the airplane and flew the airplane back to the centerline of the runway and landed.

The Safety Board was not notified of the accident until January 27, 2000.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	74,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	August 6, 1999
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	23998 hours (Total, all aircraft), 2000 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N5801X
Model/Series:	310F 310F	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	310-0101
Landing Gear Type:	Retractable - Tricycle	**Seats:**	5
Date/Type of Last Inspection:	August 25, 1999 Annual	**Certified Max Gross Wt.:**	4830 lbs
Time Since Last Inspection:	49 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	4353 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed	**Engine Model/Series:**	IO-470
Registered Owner:	DE VOIT INC.	**Rated Power:**	260 Horsepower
Operator:	DAVID JOHN RODIUS	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	LAS ,2179 ft msl	**Distance from Accident Site:**	18 Nautical Miles
Observation Time:	11:56 Local	**Direction from Accident Site:**	110°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Broken / 22000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	14°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	VFR
Departure Time:	11:00 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	BOULDER CITY 61B	**Runway Surface Type:**	Asphalt
Airport Elevation:	2201 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	27L	**IFR Approach:**	None
Runway Length/Width:	4800 ft / 75 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 None	**Latitude, Longitude:**	35.989685,-114.810195(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Deborah
Additional Participating Persons:	JACK HOLDBROOK; LAS VEGAS , NV
Original Publish Date:	July 2, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=48556