Aviation Investigation Final Report

Location:	Wall, South Dakota	**Accident Number:**	CHI01LA254
Date & Time:	July 27, 2001, 17:30 Local	**Registration:**	N39971
Aircraft:	Taylorcraft BC12-D	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

The airplane sustained substantial damage during landing roll when it nosed over in a wheat field after attempting to land on a runway (3,500 feet by 60 feet), but impacted the terrain about 150 yards past the runway. The airplane nosed over in the soft, wet ground. The student solo pilot reported he planned on doing a "wheel landing" to the first 1/4 of the runway. He used an approach speed of 65 mph. He reported the airplane floated down the runway and when he saw the end of the runway coming up, he elected to do a "go around." He applied full power and the engine sounded normal. He reported the airplane "just would not climb," and that the airplane did not climb more than "16 feet off the ground." He reported, "The controls were not very effective when the right wing was up and then I crashed." The student pilot's total flight time was 38.6 hours, and all of it had been flown in the accident airplane. He reported he had used automobile gas in the airplane, although no Supplementary Type Certificate (STC) had been issued to the airplane for the use of auto gas. The pilot reported the engine was running smooth; it did not "cough" when full power was applied; and it did not have carburetor ice. The pilot reported the winds were calm and the temperature was 85 degrees F. The elevation at 6V4 is 2,810 feet. The density altitude was about 5,031 feet.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot failed to maintain a proper glidepath, failed to obtain proper climb rate, and executed the go-around improperly. Additional factors included the pilot's lack of experience, the crop, and the soft, wet ground.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: LANDING

Findings
1. (C) PROPER GLIDEPATH - NOT OBTAINED/MAINTAINED - PILOT IN COMMAND
2. (C) GO-AROUND - IMPROPER - PILOT IN COMMAND
3. (C) CLIMB - NOT OBTAINED/MAINTAINED - PILOT IN COMMAND
4. (F) LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings
5. (F) TERRAIN CONDITION - SOFT
6. (F) TERRAIN CONDITION - WET
7. (F) TERRAIN CONDITION - CROP

Factual Information

On July 27, 2001, at 1730 central daylight time, a Taylorcraft BC12-D, N39971, sustained substantial damage during landing roll when it nosed over in a wheat field. The 14 CFR Part 91 student solo flight had departed from a private airstrip located at the pilot's ranch at 1715 en route to the Wall Municipal Airport (6V4), Wall, South Dakota. The student pilot attempted to land on runway 12 (3,500 feet by 60 feet), but impacted the terrain about 150 yards past the runway. The airplane nosed over in the soft, wet ground. The student pilot was not injured. Visual meteorological conditions prevailed and no flight plan was filed.

The student pilot reported to a Federal Aviation Administration Operations Inspector that he planned on doing a "wheel landing" to the first 1/4 of the runway. He used an approach speed of 65 mph. He reported the airplane floated down the runway and when he saw the end of the runway coming up, he elected to do a "go around." He applied full power. He reported the engine sounded normal, although he did not look at the tachometer. He reported the airplane "just would not climb," and that the airplane did not climb more than "16 feet off the ground." He reported, "The controls were not very effective when the right wing was up and then I crashed."

The student pilot had purchased the airplane and started flying on June 1, 2001. The student pilot's total flight time was 38.6 hours, and all of it had been flown in the accident airplane. He reported he had used automobile gas in the airplane, although no Supplementary Type Certificate (STC) had been issued to the airplane for the use of auto gas.

The pilot reported the engine was running smooth; it did not "cough" when full power was applied; and it did not have carburetor ice.

The pilot reported the winds were calm and the temperature was 85 degrees F. The elevation at 6V4 is 2,810 feet. The density altitude was about 5,031 feet.

Pilot Information

Certificate:	Student	**Age:**	48,Male
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:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	July 9, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	39 hours (Total, all aircraft), 39 hours (Total, this make and model), 39 hours (Last 90 days, all aircraft), 39 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Taylorcraft	**Registration:**	N39971
Model/Series:	BC12-D	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	6630
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	June 1, 2001 Annual	**Certified Max Gross Wt.:**	1200 lbs
Time Since Last Inspection:	39 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1084 Hrs at time of accident	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	A65-8
Registered Owner:	James Nachtigall	**Rated Power:**	65 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:	RAP,3202 ft msl	**Distance from Accident Site:**	28 Nautical Miles
Observation Time:	18:55 Local	**Direction from Accident Site:**	280°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	110°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.06 inches Hg	**Temperature/Dew Point:**	27°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Owanka, SD	**Type of Flight Plan Filed:**	None
Destination:	Wall, SD (6V4)	**Type of Clearance:**	None
Departure Time:	17:15 UTC	**Type of Airspace:**	Class E

Airport Information

Airport:	Wall Airport 6V4	**Runway Surface Type:**	Asphalt
Airport Elevation:	3268 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	12	**IFR Approach:**	None
Runway Length/Width:	3500 ft / 60 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	43.990779,-102.23027(est)

Administrative Information

Investigator In Charge (IIC):	Silliman, Jim
Additional Participating Persons:	Gary Soldwisch; FAA; Rapid City, SD
Original Publish Date:	October 24, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52907

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