Aviation Investigation Final Report

Location:	CLEARWATER, Florida	**Accident Number:**	MIA99LA052
Date & Time:	December 19, 1998, 17:14 Local	**Registration:**	N5836P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student had failed the soft field takeoff procedure during a commercial checkride 3 days earlier and was flying with his flight instructor for additional training. The instructor stated that the student had the tendency to allow the airplane to drift to the left after the nose wheel came off the ground. The flight departed and with the student performing a soft field takeoff, the airplane began drifting to the left. The instructor advised the student to apply 'a lot more right rudder!' and the student applied 'way too much' right rudder. While flying in a cross controlled condition, the instructor attempted to regain control but the airplane stalled and the left wing of the airplane contacted the runway, followed by the right wing. The airplane then traveled off the runway onto grass and came to rest with the right main landing gear collapsed. The instructor stated that he should have taken corrective action sooner. Examination of the airplane revealed a bent and broken threaded portion of a rod end for the retract/extension rod.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The delay by the pilot-in-command (CFI) to take control of the airplane and inadvertent stall/mush resulting in the uncontrolled descent and impact with the runway.

Findings

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

Findings
1. RUDDER - EXCESSIVE - DUAL STUDENT
2. AILERON - IMPROPER - DUAL STUDENT
3. (C) PROPER ASSISTANCE - DELAYED - PILOT IN COMMAND(CFI)
4. (C) STALL/MUSH - INADVERTENT - PILOT IN COMMAND(CFI)

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

Findings
5. TERRAIN CONDITION - RUNWAY

Factual Information

On December 19, 1998, about 1714 eastern standard time, a Piper PA-24-250, N5836P, registered to Cross Winds Aviation, Inc., experienced an in-flight loss of control during takeoff from the St. Petersburg-Clearwater International Airport, Clearwater, Florida. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 CFR Part 91 instructional flight. The airplane was substantially damaged and the certified flight instructor (CFI), private-rated student, and one passenger were not injured. The flight was originating at the time of the occurrence.

The purpose of the flight was for the student to practice soft field takeoffs because he had failed the soft field takeoff procedure during his commercial checkride 3 days earlier. The CFI stated that the student had the tendency while practicing soft field takeoffs previously to not apply enough right rudder after the nose wheel left the ground resulting in the airplane drifting to the left. The airplane was taxied to the runway and after being cleared for takeoff, power was applied and the student initiated a soft field takeoff procedure. After the nose landing gear came off the runway, the airplane began drifting to the left and the CFI advised the student to apply "a lot more right rudder!" The CFI stated that the student applied "way too much" right rudder and while flying in ground effect, the airplane was flying in a cross control condition with right rudder and left aileron inputs applied. The CFI advised the student to remove the right rudder input and he corrected with left rudder and removed the left aileron input. The CFI reported that while in a cross controlled power-on stalled condition, the left wingtip contacted the runway, followed by the right wing. The airplane then traveled off the runway onto grass and came to rest with the right main landing gear collapsed. The CFI stated that he should have taken corrective action sooner.

Examination of the right main landing gear assembly by an FAA airworthiness inspector revealed that the threaded portion of the rod end for the extension/retract rod was bent and broken.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	29,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
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:**	June 1, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	1090 hours (Total, all aircraft), 10 hours (Total, this make and model), 940 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 48 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N5836P
Model/Series:	PA-24-250 PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-917
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	May 13, 1998 Annual	**Certified Max Gross Wt.:**	2800 lbs
Time Since Last Inspection:	164 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5110 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-540-A1A5
Registered Owner:	CROSSWINDS AVIATION, INC.	**Rated Power:**	250 Horsepower
Operator:	MARK R. WHITNEY	**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:	PIE ,11 ft msl	**Distance from Accident Site:**	
Observation Time:	17:15 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	7 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	110°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	22°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(PIE)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	17:13 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	ST PETERSBURG-CLEARWATER PIE	**Runway Surface Type:**	
Airport Elevation:	11 ft msl	**Runway Surface Condition:**	
Runway Used:	9	**IFR Approach:**	
Runway Length/Width:	5165 ft / 150 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	27.900371,-82.680488(est)

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	AMANDA CROMIE; TAMPA , FL
Original Publish Date:	February 16, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=45490