Aviation Investigation Final Report

Location:	Inverness, Florida	**Accident Number:**	ERA15LA214
Date & Time:	May 12, 2015, 07:40 Local	**Registration:**	N43715
Aircraft:	Taylorcraft BC-12D	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control on ground	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After an uneventful preflight inspection and flight around the local area, the private pilot returned to the departure airport to practice touch-and-go landings in the tailwheel-equipped airplane. The first two practice landings were uneventful; during the third landing roll, the pilot felt a vibration originating from the tailwheel that rapidly increased in intensity before the airplane suddenly veered to the left. The pilot attempted to compensate by applying full rudder control to the right, but the airplane continued to the left, departed the runway, struck a taxiway sign, and pitched nose down, which resulted in substantial damage to the fuselage.

Postaccident examination of the airplane's tailwheel revealed that the steering mechanism components connecting the tailwheel to the rudder had disconnected. Although a spring was recovered from the runway after the accident, the remaining hardware components were not recovered. Given this information, it is likely that the tailwheel steering mechanism became disconnected at some point during the landing and ultimately resulted in the pilot's inability to maintain directional control of the airplane. Because some of the steering mechanism components were not recovered, the reason for the disconnection could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A disconnection of the tailwheel steering mechanism during landing, which resulted in the pilot's loss of directional control.

Findings

Aircraft	Landing gear steering system - Failure
Environmental issues	Sign/marker - Contributed to outcome

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

On May 12, 2015, at 0740 eastern daylight time, a Taylorcraft BC-12D, N43715, was substantially damaged while attempting to land at Inverness Airport (INF), Inverness, Florida. The private pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local, personal flight, which was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91.

The pilot performed a preflight inspection of the airplane before departing on the local flight with the intent of practicing touch-and-go landings. The first two practice landings were uneventful. The pilot landed the airplane in a "three point full stall" attitude during the third landing. During the landing roll, and just before the pilot intended to increase engine power to take off, he felt a vibration originating from the tailwheel that was increasing rapidly in intensity. The airplane then suddenly veered to the left. The pilot attempted to compensate by applying full rudder to the right, but the airplane continued left, departed the runway, and struck a taxiway sign. The airplane subsequently pitched forward and the nose struck the ground, resulting in substantial damage to the fuselage.

A Federal Aviation Administration (FAA) inspector examined the airplane following the accident and noted the tailwheel steering linkage was disconnected from the rudder arm. The right side tailwheel spring, which attached the right side of the tailwheel steering arm to the rudder remained attached to the tailwheel. The left side spring was not attached and was recovered by the pilot from the runway. The associated hardware used to attach the spring to the rudder arm were not recovered.

Review of the airplane's maintenance records revealed that the airplane's most recent annual inspection was completed on September 15, 2014. At that time the airframe had accrued 3,140 total hours of operation.

Pilot Information

Certificate:	Private	**Age:**	72,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Sport pilot Without waivers/limitations	**Last FAA Medical Exam:**	September 10, 1986
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	December 20, 2013
Flight Time:	306 hours (Total, all aircraft), 45 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Taylorcraft	**Registration:**	N43715
Model/Series:	BC-12D	**Aircraft Category:**	Airplane
Year of Manufacture:	1946	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	7374
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	September 15, 2014 Annual	**Certified Max Gross Wt.:**	1200 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	3140 Hrs as of last inspection	**Engine Manufacturer:**	Continental Motors
ELT:	C91A installed, not activated	**Engine Model/Series:**	A65-8
Registered Owner:	On file	**Rated Power:**	65 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KINF,50 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	11:35 Local	**Direction from Accident Site:**	5°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.18 inches Hg	**Temperature/Dew Point:**	21°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Inverness, FL (INF)	**Type of Flight Plan Filed:**	None
Destination:	Inverness, FL (INF)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class G

Airport Information

Airport:	INVERNESS INF	**Runway Surface Type:**	Asphalt
Airport Elevation:	64 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	19	**IFR Approach:**	None
Runway Length/Width:	5001 ft / 75 ft	**VFR Approach/Landing:**	Touch and go;Traffic pattern

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:**	28.803611,-82.318336(est)

Administrative Information

Investigator In Charge (IIC):	Diaz, Dennis
Additional Participating Persons:	Randy Ryhal; FAA/FSDO; Tampa, FL
Original Publish Date:	April 13, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=91195