



Aviation Investigation Final Report

Location:	Goodland, Kansas	Accident Number:	CHI02LA147
Date & Time:	June 2, 2002, 13:30 Local	Registration:	NC662Y
Aircraft:	Waco ASO	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was substantially damaged when it veered off the runway during landing. The pilot reported that when the tailwheel touched down, the airplane started to shake and bang and turn left. The airplane departed the left side of the runway and the right lower wing contacted a dirt mound breaking the wing spars. A postaccident teardown of the tailwheel assembly by the manufacturer determined that the tailwheel was not assembled according to the manufacturer's specifications. The teardown inspection determined that the tailwheel "would not function properly because it was incorrectly assembled."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the tailwheel assembly after touchdown that resulted in loss of airplane directional control, which the pilot could not correct. A contributing factor was the improper assembly of the tailwheel.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) LANDING GEAR, TAILWHEEL ASSEMBLY - FAILURE
2. (F) LANDING GEAR - IMPROPER - OTHER MAINTENANCE PERSONNEL

3. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

On June 2, 2002, at 1330 central daylight time, a Waco ASO, NC662Y, piloted by an airline transport pilot, was substantially damaged during landing when it veered off runway 23 (3,501 feet by 75 feet, asphalt) at the Renner Field-Goodland Municipal Airport (GLD), Goodland, Kansas. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot and passenger reported no injuries. The flight originated from the Pratt Industrial Airport, Pratt, Kansas at 1015 and was en route to GLD.

The pilot stated in a written statement, "At tailwheel touchdown aircraft immediately began shaking, banging, and turning to the left. As aircraft slowed the left turning force could not be stopped, even with full right rudder and brake. The aircraft departed the left side of the runway, still turning left. The right lower wing struck a small mound along the side of the runway breaking the spruce wing spars."

The pilot made multiple landings without incident on the same day prior to the accident.

The pilot reported a total time in the accident airplane make and model of 14 hours.

A postaccident teardown of the tailwheel assembly by the manufacturer determined that the tailwheel was not assembled according to the manufacturer's specifications. The teardown inspection determined that the tailwheel "would not function properly because it was incorrectly assembled."

Pilot Information

Certificate:	Airline transport; Flight engineer; Flight instructor	Age:	56, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	April 15, 2002
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 1, 2001
Flight Time:	15000 hours (Total, all aircraft), 14 hours (Total, this make and model), 11000 hours (Pilot In Command, all aircraft), 179 hours (Last 90 days, all aircraft), 58 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Waco	Registration:	NC662Y
Model/Series:	ASO	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	3228
Landing Gear Type:	Tailwheel	Seats:	3
Date/Type of Last Inspection:	May 22, 2002 Annual	Certified Max Gross Wt.:	2600 lbs
Time Since Last Inspection:	13 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1091 Hrs	Engine Manufacturer:	Wright
ELT:	Installed, not activated	Engine Model/Series:	R-760-8
Registered Owner:	David K. Allen	Rated Power:	235 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:	KGLD,3656 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	12:56 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	26.68 inches Hg	Temperature/Dew Point:	35°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pratt, KS (PTT)	Type of Flight Plan Filed:	None
Destination:	Goodland, KS (GLD)	Type of Clearance:	None
Departure Time:	10:15 Local	Type of Airspace:	Class G

Airport Information

Airport:	RENNER FLD /GOODLAND MUNICIPAL GLD	Runway Surface Type:	Asphalt
Airport Elevation:	3656 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	3501 ft / 75 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.339832,-101.699752(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Bob A Strecker; Federal Aviation Administration; Wichita, KS
Original Publish Date:	July 2, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=54833

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).