



Aviation Investigation Final Report

Location:	Port Angeles, Washington	Accident Number:	SEA06CA157
Date & Time:	August 5, 2006, 11:30 Local	Registration:	N347JP
Aircraft:	Piggott Bearhawk	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said that he had done several stop-and-go landings; he then made a full stop for a respite. When he taxied out for his next departure on runway 08, he experienced no steering problems. As he took off, the airplane vibrated briefly. The pilot performed another landing and had a firm touchdown. He said the aircraft immediately veered left and full right rudder had no effect. He said that his feet had slipped off the aircraft's toe brakes during the landing, so differential braking was not possible. The right main landing gear collapsed, and the right wing and aileron were bent. Postaccident examination of the tail wheel assembly revealed that the clevis which connected the left tail wheel spring to the wheel's steering arm was missing. Additionally, serpentine skid marks were found on the runway that appeared to be the result of a tailwheel shimmy. The pilot reported that the wind during his first landing was from 350 degrees at 6 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of directional control as a result of the disconnected tail wheel steering system, which led to an inadvertent ground loop during the landing roll.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) LANDING GEAR,STEERING SYSTEM - DISCONNECTED

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

2. (C) DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

3. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - RUNWAY

Factual Information

On August 5, 2006, at approximately 1130 Pacific daylight time, a Piggott Bearhawk experimental homebuilt airplane, N347JP, was substantially damaged during a ground loop event while landing at William R. Fairchild International Airport (CLM), Port Angeles, Washington. The airline transport pilot, the sole occupant on board, was not injured. The airplane was being operated under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the personal local flight which had originated approximately 5 minutes before the accident. The pilot had not filed a flight plan.

The pilot said that he had done several stop-and-go landings; he then made a full stop for a respite. When he taxied out for his next departure on runway 08, he experienced no steering problems. As he took off, the airplane vibrated briefly. The pilot performed another landing and had a firm touch down. He said the aircraft immediately veered left and full right rudder had no effect. He said that his feet had slipped off the aircraft's toe brakes during the landing, so differential braking was not possible. The right main landing gear collapsed, and the right wing and aileron were bent.

Postaccident examination of the tail wheel assembly revealed that the clevis which connected the left tail wheel spring to the wheel's steering arm was missing. Additionally, serpentine skid marks were found on the runway that appeared to be the result of a tail wheel shimmy. The pilot reported that the wind during his first landing was from 350 degrees at 6 knots.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	72, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	June 1, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 1, 2005
Flight Time:	8218 hours (Total, all aircraft), 4 hours (Total, this make and model), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piggott	Registration:	N347JP
Model/Series:	Bearhawk	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	347
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Condition	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	50 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-540
Registered Owner:	Daniel E. Donovan	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:	CLM,291 ft msl	Distance from Accident Site:	
Observation Time:	11:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.09 inches Hg	Temperature/Dew Point:	19°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Port Angeles, WA (CLM)	Type of Flight Plan Filed:	None
Destination:	Sequim, WA (W28)	Type of Clearance:	None
Departure Time:	11:25 Local	Type of Airspace:	

Airport Information

Airport:	Fairchild Inter Arpt CLM	Runway Surface Type:	Asphalt
Airport Elevation:	291 ft msl	Runway Surface Condition:	Dry
Runway Used:	08	IFR Approach:	None
Runway Length/Width:	6347 ft / 150 ft	VFR Approach/Landing:	Stop and go

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:	48.020793,-123.819519(est)

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	Patrick Paden; FAA FSDO; Seattle, WA
Original Publish Date:	November 29, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=64305

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).