



# Aviation Investigation Final Report

<b>Location:</b>	Herreid, South Dakota	<b>Accident Number:</b>	CHI08CA245
<b>Date &amp; Time:</b>	August 5, 2008, 07:45 Local	<b>Registration:</b>	N3161A
<b>Aircraft:</b>	Air Tractor 301	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Sys/Comp malf/fail (non-power)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The pilot returned for landing in the tailwheel configured airplane after an agricultural application flight. He executed a normal landing on runway 12 (2,230 feet by 200 feet, asphalt/turf) and kept the tail up as long as possible as the airplane slowed. The pilot stated that when the tailwheel touched down it felt as if the tail was dragging on the ground and the airplane drifted to the right. He applied opposite rudder but was unable to stop the drift. He subsequently applied the brakes, which spun the airplane around and brought it to a stop partially off the runway. The pilot reported that after the accident he observed a bolt securing the tailwheel had failed. The bolt was discarded and was not available for further examination. The pilot commented that he will proactively inspect and replace the tailwheel bolts before each spray season.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of one of the tailwheel bolts on landing and the pilot's subsequent inability to maintain directional control.

## Findings

<b>Aircraft</b>	Nose/tail gear strut/axle - Failure
<b>Aircraft</b>	Directional control - Not attained/maintained



## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Sys/Comp malf/fail (non-power) (Defining event)
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### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Single
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	December 1, 2007
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	February 1, 2008
<b>Flight Time:</b>	723 hours (Total, all aircraft), 723 hours (Total, this make and model), 602 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Air Tractor	<b>Registration:</b>	N3161A
<b>Model/Series:</b>	301	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	AT-301-0481
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	July 1, 2008 100 hour	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	R-1340
<b>Registered Owner:</b>	Diebert Ag Service	<b>Rated Power:</b>	600 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BMG	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	19:55 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	80°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.05 inches Hg	<b>Temperature/Dew Point:</b>	25°C / 14°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Herreid, SD (5T4)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:00 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Herreid Muni 5T4	<b>Runway Surface Type:</b>	Asphalt,Grass/turf
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	12	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2320 ft / 200 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	45.854167,-100.075279

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sorensen, Timothy
<b>Additional Participating Persons:</b>	Mark Goodwin; FAA-Rapid City FSDO; Rapid City, SD
<b>Original Publish Date:</b>	September 26, 2008
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=68924">https://data.ntsb.gov/Docket?ProjectID=68924</a>

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