



National Transportation Safety Board Aviation Accident Data Summary

Location:	Kingman, AZ	Accident Number:	LAX02LA147
Date & Time:	05/01/2002, 1858 PDT	Registration:	N90802
Aircraft:	Air Tractor AT-802A	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

The airplane ground looped during landing and the left main landing gear strut fractured and separated. The pilot told a Federal Aviation Administration (FAA) inspector that the landing gear strut collapsed unexpectedly, and without warning, during the landing roll, and the airplane ground looped to the right. It was not subjected to an abnormal load during landing and the airplane was relatively light with no chemical load aboard and about 1,300 pounds of fuel. The inspector examined the airplane and said the left landing gear leaf broke inside the saddle. There was rust and beach marks in the fracture face indicative of a pre-existing crack. The FAA inspector said the left landing gear strut, a single spring steel leaf, separated in the shoulder area where the strut enters the saddle at the fuselage skin line. The left landing gear wheel was broken in the outboard flange area and the tire was deflated. The tire exhibited deep radial scratch marks on the outboard side wall. The aileron hinge bracket at the left wing tip was bent inboard and striations on the left wing lower surface were oriented spanwise. The left wing outer half-span was bent upward accompanied by compression wrinkling of the upper wing skin. Examination of the fracture by a metallurgical laboratory revealed that the strut met the manufacturer's chemical, hardness, and materials specifications for the component. The fracture through the strut was characterized by two distinct modes. The first was 0.08 inches in depth and 0.37 inches in width and exhibited features consistent with fatigue. The fatigue crack had multiple initiation sites along the top surface in an area that had fretting damage. The remainder of the fracture face displayed gross overload features. According to the laboratory report, the transverse failure of the strut resulted from an overload condition, with high side and drag loads, well in excess of the design ultimate load for the component.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The failure of the pilot to maintain directional control during landing.

Findings

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

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) GROUND LOOP/SWERVE - ENCOUNTERED - PILOT IN COMMAND

Occurrence #2: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

3. LANDING GEAR,MAIN GEAR STRUT - OVERLOAD
4. LANDING GEAR,MAIN GEAR STRUT - FRACTURED

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

5. TERRAIN CONDITION - RUNWAY

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	56
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	30000 hours (Total, all aircraft), 200 hours (Total, this make and model), 28000 hours (Pilot In Command, all aircraft), 95 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N90802
Model/Series:	AT-802A	Engines:	1 Turbo Prop
Operator:	William R. Dare	Engine Manufacturer:	Pratt & Whitney Canada
Operating Certificate(s) Held:		Engine Model/Series:	PT6-65
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	IGM, 3449 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	10 knots / , 220°
Temperature:	17° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bullhead City, AZ (A09)	Destination:	Kingman, AZ (IGM)

Airport Information

Airport:	Kingman (IGM)	Runway Surface Type:	Asphalt
Runway Used:	21	Runway Surface Condition:	Dry
Runway Length/Width:	6831 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	35.265833, -113.941111		

Administrative Information

Investigator In Charge (IIC):	RICHARD B PARKER	Adopted Date:	04/25/2006
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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