



Aviation Investigation Final Report

Location:	NESS CITY, Kansas	Accident Number:	CHI96LA217
Date & Time:	June 26, 1996, 09:00 Local	Registration:	N8883S
Aircraft:	Air Tractor AT-301	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot stated that during a swath run the engine began to vibrate. He reduced engine power, then applied power again, but the vibration continued. He elected to conduct a forced landing. During the landing the airplane encountered wet terrain and nosed over. Subsequent examination revealed that a bolt in the propeller counterweight had broken. Source of the break in the bolt was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of a counterweight bolt in the propeller for reasons undetermined. Factors were the wet landing area and the encounter with unsuitable terrain during the forced landing.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) PROPELLER SYSTEM/ACCESSORIES,COUNTERWEIGHT - LOOSE PART/BOLT/NUT/CLAMP/ETC

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

2. (F) TERRAIN CONDITION - NONE SUITABLE
3. TERRAIN CONDITION - WET

Factual Information

On June 26, 1996, at 0900 central daylight time, an Air Tractor AT-301, N8883S, sustained substantial damage during a forced landing following a loss of engine power, near Ness City, Kansas. The pilot reported no injuries. The 14 CFR Part 137 flight was operating in visual meteorological conditions. No flight plan was on file. The flight departed from a private strip on the local flight near Ness City, Kansas.

The pilot stated that that during his third spray run the engine began to vibrate. He said that he initially reduced power, but then tried to advance the throttle again. He then found that the vibration was continuing. He elected to execute a forced landing; however, he overflew the intended field and touched down in a wheat field. The touchdown was in mud and the airplane nosed over.

Subsequent to the accident an examination was conducted to determine the source of the vibration. A counterweight bolt on the propeller was found broken. The pilot was unable to account for the reason the bolt broke and did not have any record of the time in service for that component.

Pilot Information

Certificate:	Commercial	Age:	48, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	8526 hours (Total, all aircraft), 900 hours (Total, this make and model), 8496 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N8883S
Model/Series:	AT-301 AT-301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	301-0226
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	7000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-1340
Registered Owner:	STEVE J. BLOCKER	Rated Power:	600 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	27°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, KS (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	07:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

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:	38.450527,-99.899909(est)

Administrative Information

Investigator In Charge (IIC): Wilson, Stephen

Additional Participating Persons:

Original Publish Date: December 16, 1996

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=10288>

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