



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	GARWOOD, TX	<b>Accident Number:</b>	FTW00LA168
<b>Date &amp; Time:</b>	06/01/2000, 1920 CDT	<b>Registration:</b>	N8886S
<b>Aircraft:</b>	Air Tractor AT-301	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The commercial pilot had dispensed his 4th load of fertilizer for the day and was returning to the airstrip, when he reported a vibration, followed by a loss of engine power. During the forced landing, another pilot observed the airplane hit a ditch between two rice fields, and then nose over. The integrity of the fuel system was not compromised during the impact sequence. There was no evidence of fuel found at the accident site during an examination the day after the accident. Fuel stains were found on the bottom of the right wing. During an engine test run, the engine ran rough, backfiring, and cutting out momentarily throughout the normal power range. When the engine was run at power, on only the left magneto, the engine maintained 28 inches of manifold pressure at 2,000 RPM; however, it would still cut out from time to time. Removal and examination of the right magneto revealed that the internal brass gear splines were worn and brass particles were scattered within the magneto. Removal, bench testing, and examination of the carburetor revealed that the float movement was rough, the orifice of the float valve was too large, the float was set too low, and the accelerator pump did not work well. The carburetor had been removed, overhauled, reinstalled, and returned to service approximately 3 weeks prior to the accident. The seat belt and shoulder harness were found fastened, and the pilot was wearing his helmet. The curved overturn tube, located in the upper portion of the cockpit, was crushed inward. According to the manufacturer representative, a service bulletin was issued on March 23, 1991, for the installation of a cockpit overturn skid plate as an added safety feature. The skid plate had not been installed in the accident aircraft.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loss of engine power in cruise flight as a result of the failure of the right magneto. A contributing factor was the lack of suitable terrain for the forced landing.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE

### Findings

1. (C) IGNITION SYSTEM,MAGNETO - FAILURE
2. FUEL SYSTEM,CARBURETOR - INCORRECT
3. MAINTENANCE,OVERHAUL - IMPROPER - OTHER MAINTENANCE PERSONNEL

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

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Occurrence #3: NOSE OVER  
Phase of Operation: EMERGENCY LANDING

Findings

- 4. (F) TERRAIN CONDITION - NONE SUITABLE
- 5. TERRAIN CONDITION - BERM

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	65
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Single-engine
<b>Flight Time:</b>	30336 hours (Total, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Air Tractor	<b>Registration:</b>	N8886S
<b>Model/Series:</b>	AT-301 AT-301	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	MICHAEL THOMPSON	<b>Engine Manufacturer:</b>	P&W
<b>Operating Certificate(s) Held:</b>		<b>Engine Model/Series:</b>	R1340-AN-1
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

### Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	, 0 ft msl	<b>Weather Information Source:</b>	Witness
<b>Lowest Ceiling:</b>	None / 0 ft agl	<b>Wind Speed/Gusts, Direction:</b>	8 knots / , 225°
<b>Temperature:</b>	90° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	(NONE)	<b>Destination:</b>	

### Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC): JOYCE ROACH Adopted Date: 07/17/2001

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](mailto: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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