



# Aviation Investigation Final Report

<b>Location:</b>	JEFFERSON, Oklahoma	<b>Accident Number:</b>	FTW89DPJ03
<b>Date &amp; Time:</b>	April 7, 1989, 08:30 Local	<b>Registration:</b>	N4369S
<b>Aircraft:</b>	AIR TRACTOR 301	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

THE AG AIRPLANE WAS ON A SPRAYING FLIGHT, WHEN THE NUMBER FOUR CYLINDER CRACKED & THE ENGINE LOST POWER. DURING A SUBSEQUENT EMERGENCY LANDING, THE AIRPLANE ROLLED ABOUT 450 FT, HIT A TERRACE & NOSED OVER.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER, DUE TO A CRACKED NUMBER 4 CYLINDER. A FACTOR RELATED TO THE ACCIDENT WAS: THE TERRACE (DIRT BANK) IN THE EMERGENCY LANDING AREA.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF  
Phase of Operation: MANEUVERING - AERIAL APPLICATION

### Findings

1. (C) ENGINE ASSEMBLY,CYLINDER - CRACKED

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

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

Findings

2. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

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Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	January 19, 1989
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10703 hours (Total, all aircraft), 4700 hours (Total, this make and model), 10030 hours (Pilot In Command, all aircraft), 621 hours (Last 90 days, all aircraft), 220 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AIR TRACTOR	<b>Registration:</b>	N4369S
<b>Model/Series:</b>	301 301	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	301-0049
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	February 28, 1989 Annual	<b>Certified Max Gross Wt.:</b>	6200 lbs
<b>Time Since Last Inspection:</b>	61 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3600 Hrs	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	R-1340
<b>Registered Owner:</b>	HOMESTEAD FORMS FLYING SERVICE	<b>Rated Power:</b>	600 Horsepower
<b>Operator:</b>	KIRK, DAVID T.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	HOMESTEAD FARMS FLYING	<b>Operator Designator Code:</b>	TJDC

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PNC ,1050 ft msl	<b>Distance from Accident Site:</b>	35 Nautical Miles
<b>Observation Time:</b>	08:30 Local	<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	7000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	7°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	POND CREEK , OK (OK72)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	0 ft / 0 ft	<b>VFR Approach/Landing:</b>	Forced landing

## 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>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Cook, Lloyd
<b>Additional Participating Persons:</b>	ROY WIEDEN; BETHANY , OK
<b>Original Publish Date:</b>	June 10, 1991
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=22697">https://data.ntsb.gov/Docket?ProjectID=22697</a>

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](#).