



Aviation Investigation Final Report

Location:	FERRIDAY, Louisiana	Accident Number:	FTW88DRD21
Date & Time:	September 19, 1988, 15:00 Local	Registration:	N31646
Aircraft:	AIR TRACTOR AT301	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE AGRICULTURAL AIRPLANE WAS ON A SWATH RUN WHEN THE ENGINE MALFUNCTIONED. THE PILOT RELEASED THE LOAD OF CHEMICALS AND MADE A FORCED LANDING IN A BEAN FIELD. THERE WAS VERY LITTLE DAMAGE TO THE BEANS BUT THERE WAS SUBSTANTIAL DAMAGE TO THE AIRPLANE. TEARDOWN INSPECTION OF THE ENGINE REVEALED A CRACK FROM ONE SPARK PLUG HOLE TO THE OTHER SPARK PLUG HOLE IN THE NUMBER FIVE CYLINDER. INDICATIONS WERE THAT THIS CRACK DID NOT AFFECT THE ENGINE VALVE OPERATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) ENGINE ASSEMBLY,CYLINDER - CRACKED
2. (C) ENGINE ASSEMBLY,CYLINDER - LOW COMPRESSION

Occurrence #2: FORCED LANDING

Phase of Operation: MANEUVERING - AERIAL APPLICATION

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. (F) TERRAIN CONDITION - SOFT

Factual Information

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical—no waivers/lim.	Last FAA Medical Exam:	April 11, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	20000 hours (Total, all aircraft), 1000 hours (Total, this make and model), 2000 hours (Pilot In Command, all aircraft), 400 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AIR TRACTOR	Registration:	N31646
Model/Series:	AT301 AT301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	301-0543
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	May 2, 1988 Annual	Certified Max Gross Wt.:	5000 lbs
Time Since Last Inspection:	342 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2400 Hrs	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-1340-AN-1
Registered Owner:	CONCORDIA AIR SERVICE, INC.	Rated Power:	600 Horsepower
Operator:	BEN BERNARD	Operating Certificate(s) Held:	
Operator Does Business As:	CONCORDIA AIR SERVICE	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MCB ,413 ft msl	Distance from Accident Site:	60 Nautical Miles
Observation Time:	14:48 Local	Direction from Accident Site:	120°
Lowest Cloud Condition:	Scattered / 1000 ft AGL	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	32°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry;Soft
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	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:	31.629234,-91.55091 (est)

Administrative Information

Investigator In Charge (IIC): Smith, Lewis

Additional Participating Persons:

Original Publish Date: September 11, 1989

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=22505>

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](#).