



National Transportation Safety Board Aviation Accident Final Report

Location:	Malden, MO	Accident Number:	CEN10CA185
Date & Time:	04/02/2010, 1020 CDT	Registration:	N3653T
Aircraft:	AIR TRACTOR AT-301	Aircraft Damage:	Substantial
Defining Event:	Collision with terr/obj (non-CFIT)	Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot reported that the airplane encountered a downdraft after completing an aerial application pass. While climbing away from the field, the airplane's right wing impacted a tree and the pilot performed an off-field landing instead of returning to the departure airport. The main landing gear collapsed during the landing in a rough field. A postimpact fire ensued on the right wing after the airplane came to rest. The airplane was substantially damaged. The pilot reported that there were no preimpact mechanical malfunctions or failures that would have precluded normal operation of the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from a tree during an aerial application flight.

Findings

Aircraft	Altitude - Not attained/maintained (Cause)
Environmental issues	Tree(s) - Response/compensation Rough terrain - Contributed to outcome

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event Collision with terr/obj (non-CFIT) (Defining event)
Landing	Off-field or emergency landing
Landing-landing roll	Landing gear collapse
Other	Fire/smoke (post-impact)

Pilot Information

Certificate:	Commercial	Age:	26, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last Medical Exam:	03/31/2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	06/12/2009
Flight Time:	1388 hours (Total, all aircraft), 1004 hours (Total, this make and model), 1300 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	AIR TRACTOR	Registration:	N3653T
Model/Series:	AT-301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	301-0282
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	06/05/2009, Annual	Certified Max Gross Wt.:	7400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	10984 Hours	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R1340AN-1
Registered Owner:	Aerial Farm Service	Rated Power:	600 hp
Operator:	Aerial Farm Service	Air Carrier Operating Certificate:	

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KPOF, 331 ft msl	Observation Time:	0953 CDT
Distance from Accident Site:	19 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	315°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	18°C / 11°C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	12 knots, 190°	Visibility (RVR):	
Altimeter Setting:	29.9 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gideon, MO (KM85)	Type of Flight Plan Filed:	None
Destination:	Gideon, MO (KM85)	Type of Clearance:	None
Departure Time:	0945 CDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor		

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox	Adopted Date:	08/12/2010
Additional Participating Persons:	George Holtman; Federal Aviation Administration - St. Louis FSDO; St. Ann, MO		
Publish Date:	08/12/2010		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=75636		

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