



National Transportation Safety Board Aviation Accident Final Report

Location:	Marmaduke, AR	Accident Number:	FTW03LA004
Date & Time:	10/02/2002, 1430 CDT	Registration:	N155HF
Aircraft:	Air Tractor AT-400	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

During the aerial application flight, two fields were being sprayed from east to the west with a set of power lines running north and south between the fields. The pilot would fly the airplane over the power lines and then descend to spray the field. During the accident swath descent to spray the east field, the airplane struck the ground. The pilot and local authorities reported that the winds were "strong" from the southwest. The weather observation facility, located approximately 22 nautical miles southwest of the accident site, reported the wind from 250 degrees at 4 knots, visibility 10 statute miles, few clouds at 4,000 feet agl and a broken ceiling at 5,500 feet agl, temperature 31 degrees Celsius, dew point 22 degrees Celsius, an altimeter setting of 30.01 inches of Mercury, and towering cumulus clouds in all quadrants.

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 aircraft control. A contributing factor was the towering cumulus in all quadrants.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (F) WEATHER CONDITION - THUNDERSTORM, OUTFLOW
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

On October 2, 2002, at 1430 central daylight time, an Air Tractor AT-400, agricultural airplane, N155HF, sustained substantial damage following a loss of control during an aerial application flight near Marmaduke, Arkansas. The airplane was owned and operated by Kuntz Aviation of Carthage, Mississippi, under Code of Federal Regulations Part 137. The commercial pilot, sole occupant, received minor injuries. Visual meteorological conditions prevailed for the local flight, and a flight plan was not filed. The flight originated at an unknown time.

The pilot and local authorities reported that the winds were "strong" from the southwest. During the aerial application entry to the cotton field a gust of wind struck the airplane and the airplane struck the ground. Subsequently, the airplane skidded approximately 39 feet, the left main landing gear collapsed, and the airplane skidded an additional 366 feet before coming to rest upright in the cotton field. The empennage separated from the airframe and the left wing was damaged.

On the Pilot/Operator Aircraft Accident Form (NTSB Form 6120.1/2) the operator reported that two fields were being sprayed from east to the west with a set of power lines running north and south between the fields. The pilot would fly the airplane over the power lines and then descend to spray the field. During the accident swath descent to spray the field, the airplane struck the ground.

At 1453, the weather observation facility at Jonesboro, Arkansas, located approximately 22 nautical miles southwest of the accident site, reported the wind from 250 degrees at 4 knots, visibility 10 statute miles, few clouds at 4,000 feet agl and a broken ceiling at 5,500 feet agl, temperature 31 degrees Celsius (88 degrees Fahrenheit), dew point 22 degrees Celsius (71 degrees Fahrenheit), and an altimeter setting of 30.01 inches of Mercury. Towering cumulus clouds were reported in all quadrants.

Pilot Information

Certificate:	Commercial	Age:	39, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
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 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/12/2002
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	11000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N155HF
Model/Series:	AT-400	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	0488
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	03/28/2002, Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	400 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	6200 Hours as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	PT6A-20
Registered Owner:	Glenn Kuntz	Rated Power:	550 hp
Operator:	Glenn Kuntz	Operating Certificate(s) Held:	
Operator Does Business As:	Kuntz Aviation	Operator Designator Code:	ZPJG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	JBR, 262 ft msl	Distance from Accident Site:	22 Nautical Miles
Observation Time:	1453 CDT	Direction from Accident Site:	45°
Lowest Cloud Condition:	Few / 4000 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 5500 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	31° C / 22° C
Precipitation and Obscuration:			
Departure Point:	Marmaduke, AR	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	CDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	35.831944, -90.646111

Administrative Information

Investigator In Charge (IIC): Joyce Roach **Report Date:** 11/25/2003

Additional Participating Persons: Wesley D Crook; FAA FSDO; Little Rock, AR

Publish Date:

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, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).