



Aviation Investigation Final Report

Location:	Memphis, Tennessee	Accident Number:	ATL02LA153
Date & Time:	August 6, 2002, 14:30 Local	Registration:	N3164E
Aircraft:	Air Tractor AT-301	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot stated he experienced a rough running engine and elected to make a precautionary landing to a grass strip. He stated that he could not tell the grass on the runway was tall. On landing roll, the pilot lost directional control and ground looped as the airplane collided with the six-foot tall grass. The main landing gear was spread, the tail wheel separated, and both wings collided with the ground. Examination of the airframe, flight controls, engine assembly and accessories revealed no evidence of a pre-crash mechanical failure or malfunction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's decision to make a precautionary landing to an unsuitable sod airstrip that resulted in a ground loop. A factor was tall vegetation.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. TERRAIN CONDITION - HIGH VEGETATION
3. (C) PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND
4. GROUND LOOP/SWERVE - ENCOUNTERED - PILOT IN COMMAND



Factual Information

On August 6, 2002, about 1430 central daylight time, an Air Tractor AT-301, N3164E, registered to a private owner, doing business as Baker Flying Service Inc., operating as a 14 CFR Part 137 agricultural flight, ground looped during a precautionary landing in the vicinity of Memphis, Tennessee. Visual meteorological conditions prevailed and no flight plan was filed. The airplane sustained substantial damage. The commercial pilot reported no injuries. The flight originated from Memphis, Tennessee at 1200.

The pilot stated he experienced a rough running engine after making a swath run. The engine started to sputter, cleared, and started to sputter again. The pilot suspected water was in the fuel system, and he elected to make a precautionary landing to a grass strip located on President's Island instead of continuing the flight. The pilot stated he was nervous and felt he should land. He made an approach to the north, and did not notice the height of the grass on the runway. During the approach he observed a dusty road located to the left of the runway, but elected to continue to the grass runway. On landing rollout, the airplane encountered the high grass, and he experienced a loss of directional control. The airplane ground looped to the right.

Examination of the airplane disclosed that the main landing gear was spread, the tail wheel assembly had separated, and the left and right wings sustained damage. Examination of the dirt road revealed that ample surface condition existed for a landing. A functional examination of the engine assembly was accomplished.

Pilot Information

Certificate:	Commercial	Age:	44, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
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:	June 6, 2002
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 14, 2002
Flight Time:	17700 hours (Total, all aircraft), 2200 hours (Total, this make and model), 200 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N3164E
Model/Series:	AT-301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	301-0533
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	June 25, 2002 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	195 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	9645 Hrs at time of accident	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R-1340-AN-1
Registered Owner:	Ben P. Baker	Rated Power:	600 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:	Baker Flying Service Inc.	Operator Designator Code:	ZEFG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MEM,341 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.05 inches Hg	Temperature/Dew Point:	29°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Covington, TN (M04)	Type of Flight Plan Filed:	None
Destination:	Presidents Is, TN (NONE)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	President's Island	Runway Surface Type:	Grass/turf
Airport Elevation:	224 ft msl	Runway Surface Condition:	Unknown
Runway Used:	360	IFR Approach:	None
Runway Length/Width:	2000 ft / 65 ft	VFR Approach/Landing:	Precautionary 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:	35.045833,-89.978057

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol A.
Additional Participating Persons:	Jerry B Forrest; Memphis FSDO-25; Memphis , TN
Original Publish Date:	February 25, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55421

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