



National Transportation Safety Board Aviation Accident Final Report

Location:	Ipswich, SD	Accident Number:	CEN13LA391
Date & Time:	07/02/2013, 1530 CDT	Registration:	N2072D
Aircraft:	AIR TRACTOR AT-402B	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

At the beginning of an aerial application run, the pilot rotated the airplane near the end of the runway; the airplane lifted up from the ground, yawed, and then shuddered. The airplane descended, the left wing contacted the ground, and the airplane slid to a stop. The circumstances of the accident are consistent with an aerodynamic stall during takeoff because the pilot failed to obtain adequate speed to climb 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 obtain adequate airspeed during the takeoff roll, which resulted in an aerodynamic stall.

Findings

Aircraft	Airspeed - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Pilot (Cause)

Factual Information

On July 2, 2013, about 1530 central daylight time, an Air Tractor AT-402B, N2072D, impacted terrain after takeoff from a private strip near Ipswich, South Dakota. The commercial pilot was not injured. The airplane was substantially damaged. The airplane was registered to and operated by Tri County Ag Service Inc., under the provisions of 14 Code of Federal Regulations Part 137 as an aerial application flight. Visual meteorological conditions prevailed for the flight, which operated without a flight plan. The local flight was originating at the time of the accident.

In a telephone interview with the pilot, he reported that the airplane was loaded with 380 gallons of applicant and 170 gallons of fuel prior to departure. He rotated the airplane near the end of the runway and the airplane lifted off. The airplane then twisted or yawed and he felt the airplane shudder before the left wing dropped and the airplane descended. The left wing contacted the ground and the airplane slid to a stop. Examination of the airplane revealed substantial damage to the left wing and fuselage.

History of Flight

Takeoff	Aerodynamic stall/spin (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	54
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:	10/26/2012
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	11/01/2012
Flight Time:	16353 hours (Total, all aircraft), 828 hours (Total, this make and model), 206 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	AIR TRACTOR	Registration:	N2072D
Model/Series:	AT-402B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	402B-1268
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:		Certified Max Gross Wt.:	9170 lbs
Time Since Last Inspection:		Engines:	1 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	P&W Canada
ELT:	Not installed	Engine Model/Series:	PT6A-34AG
Registered Owner:	TRI COUNTY AG SERVICE INC	Rated Power:	
Operator:	TRI COUNTY AG SERVICE INC	Air Carrier Operating Certificate:	Agricultural Aircraft (137)
Operator Does Business As:	TRI-COUNTY AG SERVICE INC	Operator Designator Code:	T0AG

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KABR, 1302 ft msl	Observation Time:	1553 CDT
Distance from Accident Site:	25 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	85°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few	Temperature/Dew Point:	29° C / 8° C
Lowest Ceiling:	None	Visibility	8 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	30.14 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ipswich, SD (2SD9)	Type of Flight Plan Filed:	None
Destination:	Ipswich, SD (2SD9)	Type of Clearance:	None
Departure Time:	1530 CDT	Type of Airspace:	

Airport Information

Airport:	TC FIELD (2SD9)	Runway Surface Type:	Asphalt
Airport Elevation:	1515 ft	Runway Surface Condition:	
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2500 ft / 28 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Jason T Aguilera	Adopted Date:	03/13/2014
Additional Participating Persons:	Todd Obritsch; FAA FSDO; Rapid City, SD		
Publish Date:	03/13/2014		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=87382		

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