



## National Transportation Safety Board Aviation Accident Factual Report

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<b>Location:</b>	NICKERSON, KS	<b>Accident Number:</b>	CHI00LA289
<b>Date &amp; Time:</b>	09/01/2000, 1600 CDT	<b>Registration:</b>	N9326R
<b>Aircraft:</b>	Cessna A188B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

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On September 1, 2000, at 1600 central daylight time, a Cessna A188B, N9326R, owned and operated by a commercial pilot, sustained substantial damage during an in-flight collision with a hay bale during initial climb and subsequent main landing gear collapse during a precautionary landing at the pilot's private airstrip near Nickerson, Kansas. Visual metrological conditions prevailed at the time of the accident. The aerial application flight was operating under the provisions of 14 CFR Part 137 and was not on a flight plan. The pilot, the sole occupant, sustained no injuries. The flight was departing for the local aerial application flight at the time of the accident.

According to the pilot's written statement, he was departing for an aerial application flight when on takeoff the aircraft impacted a hay bale located at the end of the runway. The pilot stated, "The acceleration during the take-off roll seemed lower than normal, this was expected given the heavy load [165-gallons of herbicide solution] and high density altitude [approximated at 4,780-mean sea level]." The pilot reported, "The aircraft became airborne just prior to reaching the end of the runway, but the airspeed was still well below Vy [best rate of climb airspeed]. I attempted to accelerate in 'ground effect' to Vy [best rate of climb airspeed], but the aircraft did not accelerate, so I decided to dump some of the load." The pilot stated that while he was dumping some of the chemical load, the aircraft "...bounce off the alfalfa field at least once and perhaps several times." The pilot reported that after releasing most of the chemical load, the aircraft was able to establish a normal climb attitude and speed. The pilot stated that he maneuvered the aircraft back for a landing and during the landing the right main landing gear collapsed, the right wing impacted the terrain, and the aircraft skidded to a stop.

The pilot reported that witnesses to the accident saw the aircraft impact a hay bale, located off the end of the runway used for the takeoff run, severing the right main landing gear.

The pilot reported that the accident could have been prevented by, "I could have carried a smaller load or simply not flown when the density altitude gets too high. Also could have checked the adjacent fields for temporary obstructions (in this case some hay bales) that may have been placed there."

## Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	42, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Glider	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	03/01/2000
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	1980 hours (Total, all aircraft), 298 hours (Total, this make and model), 1775 hours (Pilot In Command, all aircraft), 206 hours (Last 90 days, all aircraft), 73 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N9326R
<b>Model/Series:</b>	A188B A188B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Restricted	<b>Serial Number:</b>	18802237T
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	03/21/2000, Annual	<b>Certified Max Gross Wt.:</b>	4200 lbs
<b>Time Since Last Inspection:</b>	295 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5235 Hours	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	IO-520-D
<b>Registered Owner:</b>	BRIAN ANDREW BIRD	<b>Rated Power:</b>	300 hp
<b>Operator:</b>	BRIAN ANDREW BIRD	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	Y7BG

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HUT, 1542 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1553 CDT	Direction from Accident Site:	130°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	102° C / 57° C
Precipitation and Obscuration:			
Departure Point:	(PVT)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1600 CDT	Type of Airspace:	Class G

## Airport Information

Airport:	PRIVATE AIRSTRIP (PVT)	Runway Surface Type:	Gravel
Airport Elevation:	1500 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2600 ft / 15 ft	VFR Approach/Landing:	Precautionary Landing; Traffic Pattern

## 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	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	ANDREW T FOX
Additional Participating Persons:	JOHN PARSONS; WICHITA, KS
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .