



Aviation Investigation Final Report

Location:	CARTHAGE, South Dakota	Accident Number:	DEN83LA164
Date & Time:	July 13, 1983, 20:30 Local	Registration:	N2060J
Aircraft:	CESSNA T188C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE ACFT WAS USING A COUNTY ROAD NEAR THE FIELD BEING SPRAYED FOR TAKEOFF. THE PILOT REPORTED THAT THE HERBICIDE SLOSHED OUT ONTO THE WINDSCREEN DURING TAKEOFF AND OBSCURED HIS VISION. THE ACFT VEERED RIGHT AND ENTERED THE DITCH. THE PILOT SAID THE HOPPER LID WAS NOT SEATED PROPERLY DURING THE CHEMICAL ONLOADING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: HAZARDOUS MATERIALS LEAK/SPILL
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) SPRAY/DUSTING EQUIPMENT - LOOSE
 2. (C) TIE DOWN - INADEQUATE - GROUND PERSONNEL
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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

- 3. (C) WINDOW, FLIGHT COMPARTMENT WINDOW/WINDSHIELD - DIRTY (FOGGY)
 - 4. (C) DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND
 - 5. (C) GROUND LOOP/SWERVE - UNCONTROLLED - PILOT IN COMMAND
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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

- 6. (F) TERRAIN CONDITION - DITCH
- 7. (C) ABORTED TAKEOFF - NOT PERFORMED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	44, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 13, 1983
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2246 hours (Total, all aircraft), 750 hours (Total, this make and model), 2066 hours (Pilot In Command, all aircraft), 140 hours (Last 90 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2060J
Model/Series:	T188C T188C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	T18803350T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	June 15, 1983 Annual	Certified Max Gross Wt.:	4400 lbs
Time Since Last Inspection:	65 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1743 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Not installed	Engine Model/Series:	TSIO-520-T
Registered Owner:	WILLMAR AERIAL SPRAYING, INC.	Rated Power:	310 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HUR ,1288 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	19:50 Local	Direction from Accident Site:	290°
Lowest Cloud Condition:	Scattered	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	33°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	20:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Gravel
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	None

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:	44.159126,-97.709289(est)

Administrative Information

Investigator In Charge (IIC): Winningham, Fred

**Additional Participating
Persons:**

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=16114>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).