



Aviation Investigation Final Report

Location:	OCONTO, Nebraska	Accident Number:	CHI93LA170
Date & Time:	May 14, 1993, 07:30 Local	Registration:	N4503U
Aircraft:	AIR TRACTOR AT-401	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT WAS OVER FLYING A FIELD IN PREPARATION FOR A SPRAYING RUN WHEN A RAIN SHOWER OCCURRED. THE PILOT STATED A MICROBURST WAS ENCOUNTERED AND HE DUMPED THE CHEMICAL LOAD IN AN ATTEMPT TO MAINTAIN ALTITUDE. THE AIRPLANE DESCENDED FROM AN ALTITUDE OF APPROXIMATELY 400 FEET TO IMPACT WITH THE TERRAIN. A SURFACE WEATHER REPORT ISSUED 25 MINUTES AFTER THE ACCIDENT FROM THE BROKEN BOW AIRPORT, 19 MILES NORTH-NORTHEAST OF THE ACCIDENT SITE, REPORTED VIRGA SOUTH-SOUTHWEST OF THE AIRPORT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INABILITY TO MAINTAIN ALTITUDE AFTER ENCOUNTERING A DOWNDRAFT.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings
1. (C) WEATHER CONDITION - DOWNDRAFT

Occurrence #2: ALTITUDE DEVIATION, UNCONTROLLED
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

2. (C) ALTITUDE - NOT POSSIBLE - PILOT IN COMMAND

3. LOAD JETTISON - PERFORMED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. TERRAIN CONDITION - OPEN FIELD

Factual Information

Pilot Information

Certificate:	Commercial	Age:	33, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
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:	January 31, 1993
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1848 hours (Total, all aircraft), 247 hours (Total, this make and model), 1750 hours (Pilot In Command, all aircraft), 179 hours (Last 90 days, all aircraft), 128 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AIR TRACTOR	Registration:	N4503U
Model/Series:	AT-401 AT-401	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	401-0748
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	March 8, 1993 Annual	Certified Max Gross Wt.:	8060 lbs
Time Since Last Inspection:	140 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1159 Hrs	Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	R-1340-ANI
Registered Owner:	ARLEN A. OLSON	Rated Power:	600 Horsepower
Operator:	OLSON AIR SERVICE, INC.	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:	BBW ,2546 ft msl	Distance from Accident Site:	19 Nautical Miles
Observation Time:	07:55 Local	Direction from Accident Site:	17°
Lowest Cloud Condition:	Unknown / 5000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	16°C / 10°C
Precipitation and Obscuration:	N/A - None - Rain		
Departure Point:	HOLDREGE , NE	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	06:30 Local	Type of Airspace:	Class G

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	41.140556,-99.759162(est)

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	JAKE WILSON; LINCOLN , NE
Original Publish Date:	November 15, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=15716

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