



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Ainsworth, NE	<b>Accident Number:</b>	CHI05LA050
<b>Date &amp; Time:</b>	01/01/2005, 1120 CST	<b>Registration:</b>	N35403
<b>Aircraft:</b>	Cessna 551	<b>Injuries:</b>	2 Minor, 3 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

The twin-engine corporate jet impacted terrain while maneuvering to land after a global positioning system (GPS) approach. The pilot reported that the airplane entered icing conditions during the approach and that the airplane descended out of instrument meteorological conditions between 300-400 feet above ground level (agl). The pilot reported that his windshield had become obscured by ice accumulation during the approach and that he "had difficulty seeing the runway." The pilot elected to land the airplane instead of executing the published missed-approach procedure. The airplane impacted terrain 439 feet short of the runway threshold while in a right turn. After the accident, there was ice accumulation on all booted airframe surfaces measuring 2-4 inches wide and 1/4 to 3/8 inch thick. The upper portions of the windscreens were contaminated with ice measuring about 3/8 inch thick. The remaining airframe portions, including the heated surfaces, were free of ice accumulation. The windshield bleed air switch was selected on "High" with the pilot's side windshield heat control knob approximately mid-range. Windshield alcohol was selected "On", but the alcohol reservoir was still full upon inspection. At the time of the accident, there was an overcast ceiling of 500 feet agl, 1-3/4 statute mile visibility with mist, and an outside temperature of -08 degrees Celsius. The published minimum descent altitude (MDA) for the GPS runway 17 approach is 500 feet agl, for an airplane equipped with a lateral navigation only GPS receiver. The pilot held a private pilot certificate with multi-engine land, instrument airplane, and Cessna 500 type rating. The pilot reported having 2,200 hours total flight time and 475 hours in the same make/model as the accident airplane.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's decision to continue below the minimum descent altitude (MDA) and his failure to fly the published missed-approach procedure. A factor to the accident was the pilot's improper use of windshield heat which resulted in the windshield becoming obscured with ice during the instrument approach in icing conditions.

## Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

### Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. (F) ANTI-ICE/DEICE SYSTEM - IMPROPER USE OF - PILOT IN COMMAND
3. (F) WINDOW, FLIGHT COMPARTMENT WINDOW/WINDSHIELD - OBSTRUCTED

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

Findings

4. (C) MINIMUM DESCENT ALTITUDE - CONTINUED BELOW - PILOT IN COMMAND

5. (C) MISSED APPROACH - NOT PERFORMED - PILOT IN COMMAND

6. TERRAIN CONDITION - GROUND

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	57
<b>Airplane Rating(s):</b>	Multi-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	2200 hours (Total, all aircraft), 475 hours (Total, this make and model), 2200 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N35403
<b>Model/Series:</b>	551	<b>Engines:</b>	2 Turbo Fan
<b>Operator:</b>	Jet Services, LLC.	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	JT15D-4
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

### Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	ANW, 2589 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	Overcast / 500 ft agl	<b>Wind Speed/Gusts, Direction:</b>	3 knots / , 30°
<b>Temperature:</b>	-8° C	<b>Visibility</b>	1.75 Miles
<b>Precipitation and Obscuration:</b>	Freezing - Mist		
<b>Departure Point:</b>	Reading, PA (RDG)	<b>Destination:</b>	Ainsworth, NE (ANW)

### Airport Information

<b>Airport:</b>	Ainsworth Municipal Airport (ANW)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	17	<b>Runway Surface Condition:</b>	Ice
<b>Runway Length/Width:</b>	6824 ft / 110 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 Minor, 2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Latitude, Longitude:</b>	42.579167, -99.993056		

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Andrew T Fox	<b>Adopted Date:</b>	07/31/2006
<b>Investigation Docket:</b>	NTSB accident and incident docket 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> .		

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