



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	Eden Prairie, Minnesota	<b>Accident Number:</b>	CEN11TA279
<b>Date &amp; Time:</b>	April 8, 2011, 17:30 Local	<b>Registration:</b>	N51RF
<b>Aircraft:</b>	ROCKWELL INTERNATIONAL 500-S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Public aircraft		

---

## Analysis

The pilot reported that he performed a stabilized visual approach with a right crosswind. The airplane touched down on the centerline and subsequently drifted to the right. The pilot overcorrected for the drift and the airplane veered hard to the left. The airplane continued off the left side of the runway and skidded to a complete stop. The right main landing gear collapsed and the right wingtip hit the ground, which resulted in substantial damage to the fuselage and wing. A postaccident inspection of the airplane revealed no preimpact anomalies. The pilot additionally reported that there was no mechanical malfunction or failure.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate compensation for the crosswind while landing, which resulted in a loss of directional control.

## Findings

---

<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Environmental issues</b>	Crosswind - Contributed to outcome
<b>Personnel issues</b>	Aircraft control - Pilot

## Factual Information

On April 8, 2011, at 1730 central daylight time, a Rockwell International 500-S, N51RF, sustained substantial damage during the landing roll when the right main landing gear collapsed after the airplane veered off the left side of runway 10R (5,000 feet by 100 feet, asphalt) at the Flying Cloud Airport (FCM), Eden Prairie, Minnesota. The commercial pilot and the airline transport co-pilot were not injured. Visual meteorological conditions prevailed at the time of the accident. The airplane departed FCM at 1500 on a 14 Code of Federal Regulations Part 91 instructional flight, and had filed a visual flight rules (VFR) flight plan.

The pilot reported that he flew a stabilized visual approach with the airplane properly configured for landing. The airplane touched down on the centerline but it drifted to the right, and then "immediately went hard left." The pilot and co-pilot attempted to control the airplane and maintain centerline, but the airplane veered off the left side of the runway. The airplane skidded to a complete stop. The right main landing gear collapsed and the right wingtip hit the ground, which resulted in substantial damage to the fuselage and wing.

The postaccident inspection of the airplane revealed no pre-impact anomalies. The pilot reported that there was no mechanical malfunction or failure.

At 1653, the surface weather observation at FCM was: wind 170 degrees at 24 knots, visibility 10 miles, overcast 5,500 feet, temperature 16 degrees Celsius (C), dew point 6 degrees C, altimeter 29.90 inches of mercury.

The airplane was registered to and operated by the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) as a public aircraft. Because they are operated as public aircraft, they are not subject to many of the Federal Aviation Regulations. Exceptions being use of airspace, air traffic control, and aircraft registration regulations. However, it is NOAA policy that aircraft shall be operated and maintained in accordance with all pertinent regulations issued by the Federal Aviation Administration (FAA), the Department of Defense (DOD), and the NOAA Aircraft Operations Center (AOC), unless a deviation is approved by the Commanding Officer, AOC.

## History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Landing gear collapse
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	31, Male
<b>Airplane Rating(s):</b>	Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 10, 2010
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 20, 2010
<b>Flight Time:</b>	473 hours (Total, all aircraft), 217 hours (Total, this make and model), 268 hours (Pilot In Command, all aircraft), 74 hours (Last 90 days, all aircraft), 61 hours (Last 30 days, all aircraft)		

## Flight instructor Information

<b>Certificate:</b>	Airline transport; Commercial	<b>Age:</b>	43, Male
<b>Airplane Rating(s):</b>	Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	November 29, 2010
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	November 22, 2010
<b>Flight Time:</b>	4659 hours (Total, all aircraft), 2480 hours (Total, this make and model), 3544 hours (Pilot In Command, all aircraft), 106 hours (Last 90 days, all aircraft), 67 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROCKWELL INTERNATIONAL	<b>Registration:</b>	N51RF
<b>Model/Series:</b>	500-S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	3298
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	March 7, 2011 100 hour	<b>Certified Max Gross Wt.:</b>	6750 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	11298 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>		<b>Engine Model/Series:</b>	TIO-540-E1B5
<b>Registered Owner:</b>		<b>Rated Power:</b>	290 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	FCM	Distance from Accident Site:	
Observation Time:	16:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 5500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	14 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	16° C / 6° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Eden Prairie, MN (FCM )	Type of Flight Plan Filed:	VFR
Destination:	Eden Prairie, MN (FCM )	Type of Clearance:	VFR
Departure Time:	15:00 Local	Type of Airspace:	

## Airport Information

Airport:	Flying Cloud Airport FCM	Runway Surface Type:	Asphalt
Airport Elevation:	906 ft msl	Runway Surface Condition:	Dry
Runway Used:	10R	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	44.82722, -93.458335(est)

## Administrative Information

Investigator In Charge (IIC):	Silliman, James
Additional Participating Persons:	Tamara Holmer; FAA Minneapolis FSDO; Minneapolis, MN
Original Publish Date:	July 18, 2011
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=78838">https://data.nts.gov/Docket?ProjectID=78838</a>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).