



# Aviation Investigation Final Report

<b>Location:</b>	Columbia, Illinois	<b>Accident Number:</b>	CHI07CA242
<b>Date &amp; Time:</b>	July 24, 2007, 10:30 Local	<b>Registration:</b>	N2498
<b>Aircraft:</b>	Marcellus Starduster SA-300	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The left main landing gear collapsed during landing on runway 21 (2,450 feet long by 150 feet wide, dry grass) . The pilot stated that on short final for runway 21 the airplane's sink rate was "higher than it should have been" and that he "did not correct it soon enough." The airplane landed hard, the pilot felt something "give" on the left side, and the left main landing gear collapsed. The pilot stated that the airplane then "swerved to the left" but he was able to stop the airplane on the runway. The pilot reported no mechanical anomalies with the airplane.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper flare, which resulted in a hard landing and subsequent left main landing gear collapse.

### Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

- Findings
1. (C) FLARE - IMPROPER - PILOT IN COMMAND
  2. TERRAIN CONDITION - GRASS
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Occurrence #2: GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. LANDING GEAR,MAIN GEAR - OVERLOAD

## Factual Information

The experimental amateur-built airplane was substantially damaged when the left main landing gear collapsed during landing. The pilot stated that on short final for runway 21 (2,450 feet by 150 feet, turf) the airplane's sink rate was "higher than it should have been" and that he "did not correct it soon enough." The airplane landed hard, the pilot felt something "give" on the left side, and the left main landing gear collapsed. The pilot stated that the airplane then "swerved to the left" but he was able to stop the airplane on the runway. The pilot reported no mechanical anomalies with the airplane.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	69, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	April 1, 2007
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 1, 2005
<b>Flight Time:</b>	1251 hours (Total, all aircraft), 90 hours (Total, this make and model), 1029 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Marcellus	<b>Registration:</b>	N2498
<b>Model/Series:</b>	Starduster SA-300	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	7242
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	July 1, 2007 Condition	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	314 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	E-185-3
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	205 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	CPS,413 ft msl	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	45°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.07 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 15°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Columbia, IL (H49 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:45 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Columbia H49	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	21	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2450 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	38.123054,-90.237503

## Administrative Information

**Investigator In Charge (IIC):** Malinowski, Edward

**Additional Participating Persons:**

**Original Publish Date:** August 30, 2007

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:** This accident report documents the factual circumstances of this accident as described to the NTSB.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=66387>

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