



# Aviation Investigation Final Report

<b>Location:</b>	West Chicago, Illinois	<b>Accident Number:</b>	CHI03LA143
<b>Date &amp; Time:</b>	June 1, 2003, 21:30 Local	<b>Registration:</b>	N21737
<b>Aircraft:</b>	Mooney M20S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

The airplane landed hard at night and bounced twice, subsequently veering off the runway and striking several airport lights and signs during an attempted aborted landing. The pilot reported he flared too high and was unable to recover from the bounced landing, he subsequently attempted to abort the landing and was unsuccessful.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper flare, and the pilot's failure to maintain directional control. Contributing factors were the pilot's improper flare and his inadequate recovery from a bounced landing.

## Findings

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

### Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND
  2. (C) RECOVERY FROM BOUNCED LANDING - INADEQUATE - PILOT IN COMMAND
  3. (C) ABORTED LANDING - NOT SUCCESSFUL - PILOT IN COMMAND
  4. (F) LIGHT CONDITION - NIGHT
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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

5. DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

6. (F) OBJECT - AIRPORT SIGN/MARKER

## Factual Information

On June 1, 2003, at 2130 central daylight time, a Mooney M20S, N21737, piloted by a commercial pilot, sustained substantial damage when it veered off the side of the runway and collided with airport signs and markings after a hard landing on runway 10 (4,751 feet by 75 feet, asphalt), at Dupage Airport (DPA), West Chicago, Illinois. The pilot and two passengers were uninjured. Night visual meteorological conditions prevailed at the time of the accident. The business flight was operating under the provisions of 14 CFR Part 91 without a flight plan. The flight originated from Eagle County Regional Airport (EGE), Eagle, Colorado, at 1500 mountain daylight time.

The pilot stated, "The flare was too high, the aircraft dropped to the runway and bounced." The pilot noted the aircraft bounced twice, and on the second bounce he attempted a go-around. The pilot reported applying full throttle and raising "what was thought to be one notch of flaps." The pilot reported the aircraft swerved left and then was "overcorrected right" and subsequently swerved off the right side of the runway, striking fixed objects with the wing. The pilot reported he reduced the throttle to idle when the aircraft ran onto a taxiway. The pilot indicated the nose gear collapsed when the aircraft transitioned from the grass onto the taxiway.

The on-sight investigation revealed that the aircraft exited the left edge of runway 10 at taxiway E-6. The aircraft's right wingtip was found at the intersection of taxiway E-6 and runway 10. A runway light was found damaged near the path of the left landing gear. The wreckage pattern and markings, including eight propeller strikes, continued to the east of runway 20 right. The left main landing gear was found separated from the rest of the aircraft. The taxiway sign for taxiway C was damaged and found next to the wreckage path. The aircraft came to a stop at the intersection of taxiways C and G.

Inspection of the airplane revealed that the flap handle was in the "up" position, and the flaps were in the fully retracted position. The tail of the aircraft showed scraping along its underside, and the tailskid was damaged. The blades were broken from the propeller hub, exhibited blade twist, and were bent aft. The left main landing gear was broken off, and the nose gear was collapsed. The leading edge of the right wing was dented about two-thirds of the way up the span from the fuselage in a pattern consistent with striking an airport sign.

The weather reporting facility located at DPA, reported the winds at 2153 as 120 degrees at 4 knots.

The pilot reported no mechanical problems with the aircraft or powerplant.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Single-engine land; 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>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	July 1, 2002
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	March 16, 2002
<b>Flight Time:</b>	1150 hours (Total, all aircraft), 103 hours (Total, this make and model), 1007 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Mooney	<b>Registration:</b>	N21737
<b>Model/Series:</b>	M20S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30-0004
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	June 30, 2002 Annual	<b>Certified Max Gross Wt.:</b>	3200 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	445 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-550G
<b>Registered Owner:</b>	Galloway Air LLC	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>		<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>	Night/dark
<b>Observation Facility, Elevation:</b>	DPA,758 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	21:53 Local	<b>Direction from Accident Site:</b>	0°
<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>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	120°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	13°C / 3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Eagle, CO (EGE )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	West Chicago, IL (DPA )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	15:00 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Dupage Airport DPA	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	758 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	10	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4751 ft / 75 ft	<b>VFR Approach/Landing:</b>	Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	41.907775,-88.248611

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Silliman, James
<b>Additional Participating Persons:</b>	William Law; FAA- Dupage FSDO; West Chicago, IL
<b>Original Publish Date:</b>	December 30, 2003
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=57116">https://data.nts.gov/Docket?ProjectID=57116</a>

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