



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	MCHENRY, MD	<b>Accident Number:</b>	BF089LA052
<b>Date &amp; Time:</b>	07/01/1989, 1206 EDT	<b>Registration:</b>	N7784M
<b>Aircraft:</b>	MOONEY M-20F	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

THE PLT MADE THE LNDG APCH WITH FULL FLAPS AT AN AIRSPEED OF APRX 90 KTS. ACCORDING TO THE PLT, HE ENCOUNTERED WIND SHEAR AT THE RWY THRESHOLD, LANDED HARD, AND BOUNCED SEVERAL TIMES. THE LANDING GEAR COLLAPSED. THE PLT TRIED TO MAKE A GO-AROUND BUT WAS UNABLE TO CLIMB OUT OF GROUND EFFECT OR GAIN FLYING SPEED. THE ACFT STALLED AND COLLIDED WITH THE GROUND LEFT OF THE RWY. RWY 26 WAS USED. THE LOCAL WINDS WERE REPORTED AT 260 DEGS AT 5 KTS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT LANDED HARD AND COLLAPSED THE LANDING GEAR WHEN HE FAILED TO ARREST HIS DESCENT RATE DURING LANDING. AFTERWARDAS HE TRIED TO MAKE A GO-AROUND THE PILOT DID NOT OBTAIN ADEQUATE FLYING SPEED, THE AIRCRAFT STALLED AND COLLIDED WITH THE GROUND.

## Findings

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Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) FLARE - MISJUDGED - PILOT IN COMMAND
2. (C) RECOVERY FROM BOUNCED LANDING - INADEQUATE - PILOT IN COMMAND
3. AIRSPEED - NOT ATTAINED - PILOT IN COMMAND
4. STALL/MUSH - INADVERTENT - PILOT IN COMMAND

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Occurrence #2: GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. LANDING GEAR - OVERLOAD
6. ABORTED LANDING - ATTEMPTED - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	12/05/1988
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	167 hours (Total, all aircraft), 55 hours (Total, this make and model), 140 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MOONEY	<b>Registration:</b>	N7784M
<b>Model/Series:</b>	M-20F M-20F	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-0032
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	05/26/1989, Annual	<b>Certified Max Gross Wt.:</b>	2740 lbs
<b>Time Since Last Inspection:</b>	20 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2760 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	IO-360-A1A
<b>Registered Owner:</b>	ROBERT L. MCKEEVER	<b>Rated Power:</b>	200 hp
<b>Operator:</b>	ROBERT L MCKEEVER	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots / 10 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29° C / 10° C
Precipitation and Obscuration:			
Departure Point:	GAITHERSBURG, MD (GAI)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1115 EDT	Type of Airspace:	Class G

## Airport Information

Airport:	GARRETT COUNTY (2G4)	Runway Surface Type:	Asphalt
Airport Elevation:	2933 ft	Runway Surface Condition:	Dry
Runway Used:	26	IFR Approach:	None
Runway Length/Width:	2495 ft / 75 ft	VFR Approach/Landing:	Go Around; Traffic Pattern

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	DENNIS L JONES	Report Date:	08/02/1990
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets 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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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](#).