



# Aviation Investigation Final Report

<b>Location:</b>	SANTA ANA, California	<b>Accident Number:</b>	LAX93LA049
<b>Date &amp; Time:</b>	November 20, 1992, 17:20 Local	<b>Registration:</b>	N4766H
<b>Aircraft:</b>	MOONEY M20J	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE PILOT SAID THE AIRCRAFT BOUNCED TWICE ON LANDING WHILE DOING TOUCH AND GO PATTERN PRACTICE OPERATIONS. THE PILOT REPORTED THAT HE 'ADDED POWER, PUSHED THE YOKE AND THE RIGHT RUDDER.' THE AIRCRAFT PITCHED UP AND TO THE LEFT, THEN THE LEFT WING HIT THE GROUND FOLLOWED BY THE RIGHT WING. THE LANDING GEAR COLLAPSED AND THE AIRCRAFT SLID TO A STOP.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER LANDING FLARE, HIS IMPROPER BOUNCED LANDING RECOVERY TECHNIQUE, AND HIS INADVERTENT ENTRY INTO A STALL MUSH CONDITION.

## Findings

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

### Findings

1. (C) FLARE - MISJUDGED - PILOT IN COMMAND
2. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND
3. (C) STALL/MUSH - INADVERTENT - PILOT IN COMMAND

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Occurrence #2: COMPLETE GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	46, 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>	
<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 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 5, 1990
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	550 hours (Total, all aircraft), 30 hours (Total, this make and model), 420 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MOONEY	<b>Registration:</b>	N4766H
<b>Model/Series:</b>	M20J M20J	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	240843
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	October 30, 1992 Annual	<b>Certified Max Gross Wt.:</b>	2740 lbs
<b>Time Since Last Inspection:</b>	23 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1356 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-360-A3B6D
<b>Registered Owner:</b>	DANIEL SHEPPARD	<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>	THE FLYING CLUB	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>	SNA ,54 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	17:20 Local	<b>Direction from Accident Site:</b>	1°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	18°C / -7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(SNA )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(SNA )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	16:40 Local	<b>Type of Airspace:</b>	Class D;Class E

## Airport Information

<b>Airport:</b>	JOHN WAYNE ORANGE CO SNA	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	54 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	19	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5700 ft / 150 ft	<b>VFR Approach/Landing:</b>	Touch and go

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 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>	2 None	<b>Latitude, Longitude:</b>	33.669502,-117.900199(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rich, Jeff
<b>Additional Participating Persons:</b>	STEVE GROOVER; LONG BEACH , CA
<b>Original Publish Date:</b>	August 26, 1993
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=27871">https://data.ntsb.gov/Docket?ProjectID=27871</a>

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