



National Transportation Safety Board Aviation Accident Final Report

Location:	KERRVILLE, TX	Accident Number:	FTW87LA024
Date & Time:	12/01/1986, 1800 CST	Registration:	N1970Y
Aircraft:	MOONEY M20D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

THE PILOT WAS UNABLE TO EXTEND THE LANDING GEAR IN PREPARATION FOR LANDING. TROUBLESHOOTING AND SEVERAL ATTEMPTS TO EXTEND THE GEAR FAILED. THE PILOT THEN MADE A 360 DEGREE TURN OVER THE AIRPORT TO LOSE ALTITUDE DURING WHICH, HE SECURED THE ENGINE AND STOPPED THE PROPELLER IN A HORIZONTAL POSITION TO MINIMIZE DAMAGE. THE PILOT REALIZED AFTER 270 DEGREES OF TURN THAT INSUFFICIENT ALTITUDE REMAINED TO REACH THE RUNWAY. THE AIRCRAFT WAS SUBSEQUENTLY LANDED ON ROUGH TERRAIN SHORT OF RUNWAY 30. POST ACCIDENT INSPECTION REVEALED THE NOSE GEAR TIRE WAS HANGING UP ON THE GEAR DOOR DURING EXTENSION. THE NOSE GEAR TIRE WAS FOUND TO BE INFLATED TO 40 PSI. THE MAINTENANCE MANUAL CALL FOR AN INFLATION PRESSURE OF 30 PSI.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH

Findings

1. (C) LANDING GEAR,NOSE GEAR - MOVEMENT RESTRICTED
 2. (C) GEAR EXTENSION - NOT POSSIBLE - PILOT IN COMMAND
 3. (C) LANDING GEAR,TIRE - JAMMED
 4. (C) LANDING GEAR,TIRE - PRESSURE EXCESSIVE
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Occurrence #2: UNDERSHOOT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
 6. (F) ALTITUDE - INADEQUATE - PILOT IN COMMAND
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

7. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	63, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	10/21/1986
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	3816 hours (Total, all aircraft), 1394 hours (Total, this make and model), 3753 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N1970Y
Model/Series:	M20D M20D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	235
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	11/11/1986, Annual	Certified Max Gross Wt.:	2575 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2835 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A2D
Registered Owner:	CHESTER N. STEELE	Rated Power:	180 hp
Operator:	CHESTER N. STEELE	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SAT, 809 ft msl	Distance from Accident Site:	91 Nautical Miles
Observation Time:	1754 CST	Direction from Accident Site:	129°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / -1° C
Precipitation and Obscuration:			
Departure Point:	SAN ANTONIO, TX (SAT)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1700 CST	Type of Airspace:	Class G

Airport Information

Airport:	KERRVILLE (ERV)	Runway Surface Type:	
Airport Elevation:	1616 ft	Runway Surface Condition:	
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	4400 ft / 100 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	U DICKENS	Report Date:	
Additional Participating Persons:	FREDERICK E DRYDEN; SAN ANTONIO, TX		
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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](#).