



Aviation Investigation Final Report

Location:	HERLONG, California	Accident Number:	LAX91LA135
Date & Time:	March 17, 1991, 16:30 Local	Registration:	N1921Y
Aircraft:	MOONEY M20D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE AIRCRAFT HAD BEEN IN CRUISE FLIGHT AT AN ALTITUDE OF 7500 FEET MSL FOR TWO AND A HALF HOURS WHEN A BLADE SEPARATED FROM THE FIXED PITCH PROPELLER. THE PILOT SECURED THE ENGINE, STOPPED THE ROTATION OF THE PROPELLER AND LANDED ON A ROAD WITHOUT FURTHER INCIDENT. A POST ACCIDENT ANALYSIS OF THE PROPELLER FAILURE DISCLOSED A FATIGUE CRACK EMANATED FROM A CORROSION AREA ON THE CAMBER SIDE OF THE BLADE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE INADEQUATE PREPARATION OF THE PROPELLER DURING OVERHAUL. THE INSTALLATION OF AN IMPROPER PITCHED PROPELLER AND THE FATIGUE FAILURE OF THE PROPELLER BLADE EMANATING FROM CORROSION WERE FACTORS IN THE ACCIDENT.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. (F) PROPELLER SYSTEM/ACCESSORIES, BLADE - FAILURE, PARTIAL
2. (C) MAINTENANCE, REBUILD/REMANUFACTURE - INADEQUATE - OTHER MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Factual Information

Pilot Information

Certificate:	Commercial	Age:	41, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 1, 1990
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1940 hours (Total, all aircraft), 1000 hours (Total, this make and model), 1781 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N1921Y
Model/Series:	M20D M20D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	216
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	January 2, 2000 Unknown	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	0360
Registered Owner:	MARLYN R. TAYLOR	Rated Power:	180 Horsepower
Operator:	MARLYN R. TAYLOR	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	COTTAGE GROVE , OR (61S)	Type of Flight Plan Filed:	VFR
Destination:	BULLHEAD CITY , AZ (PO6)	Type of Clearance:	None
Departure Time:	14:00 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	40.139671,-120.160484(est)

Administrative Information

Investigator In Charge (IIC):	Wall, James
Additional Participating Persons:	GEORGE EICHER; RENO , NV
Original Publish Date:	January 25, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=27140

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).