



Aviation Investigation Final Report

Location:	POSTON, Arizona	Accident Number:	LAX87DUJ10
Date & Time:	August 28, 1987, 20:00 Local	Registration:	N8275G
Aircraft:	CESSNA 188B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

JUST AFTER LIFTOFF ONE PROPELLER BLADE SEPARATED FROM THE HUB NEAR THE OUTBOARD END OF THE ASSOCIATED FERRULE FITTING WHICH INDUCED A FAILURE OF THE CRANCKSHAFT. THE PILOT MADE A FORCED LANDING, OVERRAN THE RUNWAY END AND NOSED OVER. METALLURGICAL ANALYSIS INDICATED THAT THE FAILURE WAS DUE TO A FATIGUE FRACTURE WITH MULTIPLE ORIGIN POINTS CAUSED BY A SCRATCH. THE ANALYSIS ALSO SUGGESTED THAT ALL BUT THE FIRST THREE FERRULE THREADS HAD BEEN REWORKED IN A POST MANUFACTURE HAND GRINDING PROCESS IN ACCORDANCE WITH A MCCAULEY SERVICE BULLETIN SPECIFYING A HAND GRINDING REWORK TO REMOVE SHARP THREADS IN THE FERRULE, WHICH HAD BEEN SHOWN TO PRODUCE PRIOR FATIGUE FRACTURES. IN THE AREA OF THE FATIGUE FRACTURE, THE FIRST THREE THREADS OF THE FERRULE WERE FOUND WITH SHARP EDGES. MAINTENANCE RECORDS DID NOT SHOW THE TOTAL TIME ON THIS PROPELLER SINCE MAJOR OVERHAUL.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) PROPELLER SYSTEM/ACCESSORIES, BLADE - FATIGUE
2. (C) PROPELLER SYSTEM/ACCESSORIES, BLADE - SEPARATION
3. (C) ENGINE ASSEMBLY, CRANKSHAFT - FAILURE, TOTAL
4. (C) MAINTENANCE, OVERHAUL - IMPROPER - OTHER MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: OVERRUN

Phase of Operation: LANDING - ROLL

Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

5. (F) TERRAIN CONDITION - CROP

Factual Information

Pilot Information

Certificate:	Commercial	Age:	55, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 4, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	19500 hours (Total, all aircraft), 19300 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N8275G
Model/Series:	188B 188B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	18801280T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	August 27, 1987 100 hour	Certified Max Gross Wt.:	4200 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2341 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Not installed	Engine Model/Series:	IO-520-D
Registered Owner:	CAMPO ROBERT H	Rated Power:	300 Horsepower
Operator:	WESTERN ARIZONA AG ROTORS	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	ZCRG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dawn
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	5 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:	32°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:	(S 4)	Type of Clearance:	None
Departure Time:	20:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	CAMP POSTON	Runway Surface Type:	Dirt
Airport Elevation:	480 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	1800 ft / 60 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	33.830612,-114.379013(est)

Administrative Information

Investigator In Charge (IIC): Hennies, Dean

Additional Participating Persons:

Original Publish Date: April 24, 1989

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=25314>

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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](#).