



National Transportation Safety Board Aviation Accident Final Report

Location:	GRAND CANYON, AZ	Accident Number:	LAX90FA007
Date & Time:	10/10/1989, 1242 MST	Registration:	N7602U
Aircraft:	CESSNA T207A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Serious
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

THE AIRPLANE WAS FLYING A SCENIC TOUR WHEN THERE WAS A LOSS OF ENGINE POWER. THE PILOT SWITCHED FUEL TANKS TO THE FULLEST TANK AND POWER WAS REGAINED MOMENTARILY. THE ENGINE STOPPED. THE PROPELLER DID NOT WINDMILL. THE PILOT ACCOMPLISHED AN OFF AIRPORT LANDING IN RUGGED MOUNTAINOUS TERRAIN. DISASSEMBLY OF THE ENGINE REVEALED THE CRANKSHAFT HAD FRACTURED. EXAMINATION OF THE FRACTURE REVEALED SUBSURFACE METAL FATIGUE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE INFLIGHT FAILURE OF THE AIRPLANE'S POWERPLANT AS A RESULT METAL FATIGUE WHICH ALLOWED THE CRANKSHAFT TO FRACTURE. CONTRIBUTING TO THE ACCIDENT WAS MOUNTAINOUS TERRAIN OF THE GRAND CANYON WHICH DID NOT ALLOW A SUITABLE FORCED LANDING AREA.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) ENGINE ASSEMBLY, CRANKSHAFT - FAILURE, PARTIAL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

2. (F) TERRAIN CONDITION - NONE SUITABLE

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY

4. (F) TERRAIN CONDITION - UPHILL

Factual Information

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	27, Male
Airplane Rating(s):	Multi-engine Land; 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):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	06/28/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2765 hours (Total, all aircraft), 1000 hours (Total, this make and model), 2554 hours (Pilot In Command, all aircraft), 304 hours (Last 90 days, all aircraft), 95 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N7602U
Model/Series:	T207A T207A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	20700442
Landing Gear Type:	Tricycle	Seats:	7
Date/Type of Last Inspection:	09/06/1989, 100 Hour	Certified Max Gross Wt.:	3800 lbs
Time Since Last Inspection:	92 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6302 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	TSIO-520
Registered Owner:	AVIATION SERVICES WEST	Rated Power:	310 hp
Operator:	AVIATION SERVICES WEST	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:	LAKE POWELL AIR SERVICE	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GCN, 6672 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1242 MST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	PAGE, AZ (PGA)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	1200 MST	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	THOMAS H WILCOX	Report Date:	09/09/1992
Additional Participating Persons:	DALE NELSON; LAS VEGAS, NV		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).