



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	PICACHO, AZ	<b>Accident Number:</b>	LAX89LA217
<b>Date &amp; Time:</b>	06/17/1989, 1500 MST	<b>Registration:</b>	N421S
<b>Aircraft:</b>	CESSNA 421	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	4 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

THE LEFT ENGINE LOST POWER JUST AFTER TAKEOFF. WITH THE GEAR AND FLAPS RETRACTED AND THE LEFT PROPELLER FEATHERED, THE AIRPLANE WOULD CLIMB SLIGHTLY. AS IT PASSED OVER GREEN FIELDS, THE AIRPLANE STARTED A DESCENT. THE AIRPLANE TOUCHED DOWN IN A COTTON FIELD AND THE LEFT TIP TANK BURST INTO FLAMES AS IT TOUCHED THE GROUND. THE AIRPLANE WAS CONSUMED BY FIRE. ENGINE TEARDOWN REVEALED THE NUMBER THREE EXHAUST VALVE FAILED. ELEVATION OF THE ACCIDENT WAS 1,600 FEET MST, OAT WAS 114 DEGREES F. DENSITY ALTITUDE WAS APPROXIMATELY 5,600 FEET.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE NUMBER THREE EXHAUST VALVE ON THE LEFT ENGINE. A MAJOR FACTOR WAS THE HIGH DENSITY ALTITUDE WHERE THE AIRPLANE WOULD NOT OPERATE ON SINGLE ENGINE.

## Findings

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

### Findings

1. (C) ENGINE ASSEMBLY, VALVE, EXHAUST - FAILURE, TOTAL
2. 1 ENGINE
3. PROPELLER FEATHERING - PERFORMED - PILOT IN COMMAND

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

### Findings

4. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE

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Occurrence #3: FIRE  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	01/09/1989
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	25169 hours (Total, all aircraft), 700 hours (Total, this make and model), 24000 hours (Pilot In Command, all aircraft), 157 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N421S
<b>Model/Series:</b>	421 421	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	0063
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	12/12/1988, Annual	<b>Certified Max Gross Wt.:</b>	6900 lbs
<b>Time Since Last Inspection:</b>	80 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	5070 Hours	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	GTSIO-520
<b>Registered Owner:</b>	W.E. HAMILTON & SCHLITTEN HART	<b>Rated Power:</b>	375 hp
<b>Operator:</b>	WILLIAM E. HAMILTON	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	30 Miles
Lowest Ceiling:	Unknown / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots / 10 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	46° C / 7° C
Precipitation and Obscuration:			
Departure Point:	(EDS)	Type of Flight Plan Filed:	None
Destination:	SEDONA, AZ (SEZ)	Type of Clearance:	None
Departure Time:	1500 MST	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Minor	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Minor	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	SHELBY K ISBELL	Report Date:	03/29/1991
Additional Participating Persons:	DEAN HENNIES; SCOTTSDALE, AR		
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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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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](#).