



# Aviation Investigation Final Report

<b>Location:</b>	KAHULUI, Hawaii	<b>Accident Number:</b>	LAX96LA110
<b>Date &amp; Time:</b>	February 9, 1996, 15:29 Local	<b>Registration:</b>	N1457
<b>Aircraft:</b>	STOLP II	STARDUSTER	<b>Aircraft Damage:</b> Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

The airplane had not been flown recently, and the engine made a popping noise during run-up. The pilot accepted a midfield intersection departure from the 6,995-foot-long runway. At about the time the airplane rotated for takeoff, the engine started to make the popping noise again. At about 75 feet above the ground, the engine quit running. The airplane had flown past the departure end of the runway, and the pilot attempted to return to the airport. However, the airplane crash landed in a sugar cane field before reaching the runway. The last previous annual inspection had been completed on 2/14/93. In November 1995, an A&P mechanic made another inspection. The mechanic indicated the airplane was in need of work and the engine had low compression. He did not return the airplane to service and released it back to the pilot/previous owner. The pilot told the mechanic he would complete the repairs himself. Examination of the left magneto revealed the internal 'P' lead was detached from its connector; and the left magneto's internal mechanism was dirty, contaminated with engine oil, and displayed evidence of internal electrical arcing. According to the engine manufacturer, this could account for the popping noise. No record was found that the pilot possessed a current airman medical certificate or biennial flight review.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a faulty engine magneto, and decision by the pilot-in-command to operate the airplane with known deficiencies. A factor relating to the accident was: the airplane was overdue for an annual inspection.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF

Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (C) IGNITION SYSTEM,MAGNETO GROUNDING LEAD (P-LEAD) - DISCONNECTED
2. (C) IGNITION SYSTEM,MAGNETO - CONTAMINATION
3. (F) MAINTENANCE,ANNUAL INSPECTION - OVERDUE - COMPANY/OPERATOR MANAGEMENT
4. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

### Findings

5. TERRAIN CONDITION - CROP

## Factual Information

On February 9, 1996, at 1529 hours Hawaiian standard time, a Stolp Starduster II, N1457, collided with the terrain in a sugar cane field off the departure end of runway 2 at the Kahului Airport, Kahului, Hawaii. The airplane was destroyed and the certificated private pilot and student pilot passenger received serious injuries. The airplane was being operated as a personal flight to demonstrate the airplane to a the new owner. Visual meteorological conditions prevailed at the time.

According to the Federal Aviation Administration (FAA), the airplane had not been flown for sometime and was being flown by the pilot/previous owner with the new owner/student pilot in the front passenger seat.

A witness reported the engine was making a popping noise during run-up. The witness stated he was surprised to see the pilot take the runway after the run-up and attempt to takeoff.

The pilot accepted a midfield intersection departure from the 6,995-foot-long runway. The engine was making a popping noise at the takeoff rotation and later quit about 75 feet above the ground. The airplane had flown past the departure end of the runway and the pilot attempted to return to the runway. The pilot indicated that while in the turn the airplane was approaching the stall speed and he pitched the airplane nose down to prevent the stall. The airplane then collided with sugar cane in a nose-down attitude.

The airplane had been inspected by an airframe and powerplant mechanic in November, 1995. The most recent inspection previous to that was on February 14, 1993. According to the mechanic, the airplane was in need of work and the engine had low compression. The mechanic did not return the airplane to service and returned it back to the pilot/previous owner. The pilot told the mechanic he would complete the repairs himself.

The engine was examined by the manufacturer under the supervision of the FAA Honolulu Flight Standards District Office. According to the engine manufacturer, the internal "P" lead of the left magneto was found detached from its connector. Further examination of the magneto revealed the internal mechanism was dirty, contaminated with engine oil, and displayed evidence of internal electrical arcing. According to the engine manufacturer, this could account for the popping noise.

According to the FAA, the pilot did not possess a current biennial flight review or airman medical certificate.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	45, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	None Expired	<b>Last FAA Medical Exam:</b>	October 7, 1992
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1000 hours (Total, all aircraft), 200 hours (Total, this make and model), 1000 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	STOLP	<b>Registration:</b>	N1457
<b>Model/Series:</b>	STARDUSTER II STARDUSTER	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	01
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	February 14, 1993 Annual	<b>Certified Max Gross Wt.:</b>	1100 lbs
<b>Time Since Last Inspection:</b>	49 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1236 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-435
<b>Registered Owner:</b>	GEORGE SIMON	<b>Rated Power:</b>	190 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	OGG ,54 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	01:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 2500 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	30°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	31°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(OGG )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:28 Local	<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	KAHALUI OGG	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	54 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	2	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	6995 ft / 150 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 Serious	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	20.869705,-156.450683(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wilcox, Thomas
<b>Additional Participating Persons:</b>	JEFFREY T WELLER; HONOLULU , HI
<b>Original Publish Date:</b>	September 19, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=29374">https://data.nts.gov/Docket?ProjectID=29374</a>

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