



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	SCOTTSDALE, AZ	<b>Accident Number:</b>	LAX87DUJ11
<b>Date &amp; Time:</b>	09/01/1987, 0558 MST	<b>Registration:</b>	N236HA
<b>Aircraft:</b>	HILLER UH-12E	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

DURING AN AERIAL APPLICATION FLIGHT, THE PLT MADE A TURN-AROUND & WAS STARTING TO MAKE ANOTHER SWATH RUN WHEN HE HEARD A LOUD 'BANG' & THEN THE HELICOPTER COLLIDED WITH TERRAIN. AN INSPN OF THE MAIN ROTOR HEAD & PIN REVEALED THE HUB HAD FAILED FROM HI CYCLE FATIGUE. THE FATIGUE ORIGINATED FROM A POINT IN THE HUB PIN BORE WHERE INTERGRANULAR CORROSION HAD OCCURRED.

## Probable Cause

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

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: MANEUVERING - AERIAL APPLICATION

### Findings

1. (C) ROTOR SYSTEM,MAIN ROTOR HUB - CORRODED
2. (C) ROTOR SYSTEM,MAIN ROTOR HUB - FATIGUE

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	28
<b>Airplane Rating(s):</b>	None	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	3011 hours (Total, all aircraft), 3011 hours (Total, this make and model), 3011 hours (Pilot In Command, all aircraft), 287 hours (Last 90 days, all aircraft), 11 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	HILLER	<b>Registration:</b>	N236HA
<b>Model/Series:</b>	UH-12E UH-12E	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	SAN TAN DUSTERS INC.	<b>Engine Manufacturer:</b>	LYCOMING
<b>Operating Certificate(s) Held:</b>		<b>Engine Model/Series:</b>	VO-540-C2A
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Dawn
<b>Observation Facility, Elevation:</b>	AFB, 1000 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None / 0 ft agl	<b>Wind Speed/Gusts, Direction:</b>	8 knots / , 80°
<b>Temperature:</b>	27° C	<b>Visibility</b>	20 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	<b>Destination:</b>		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Latitude, Longitude:</b>			

## Administrative Information

<b>Investigator In Charge (IIC):</b>	EARL NEWBERRY	<b>Adopted Date:</b>	03/31/1989
<b>Investigation Docket:</b>	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:pubinq@ntsb.gov">pubinq@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 National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.