



# Aviation Investigation Final Report

<b>Location:</b>	PARKER, Arizona	<b>Accident Number:</b>	LAX92LA338
<b>Date &amp; Time:</b>	August 8, 1992, 22:15 Local	<b>Registration:</b>	N1547P
<b>Aircraft:</b>	AIR TRACTOR AT-401	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

THE PILOT WAS CONDUCTING AN AERIAL APPLICATION SWATH RUN WHEN 10 INCHES OF A PROPELLER BLADE SEPARATED. THE PILOT EXECUTED AN EMERGENCY LANDING. ON TOUCHDOWN, THE AIRCRAFT NOSED OVER AFTER COLLIDING WITH THE ROUGH/UNEVEN TERRAIN. A METALLURGICAL EXAMINATION OF PROPELLER BLADE DISCLOSED THE PRESENCE OF FATIGUE ACROSS 60% OF THE FRACTURED SURFACE. THE ORIGIN OF THE FATIGUE CENTERED ON A NOTCH OF A PREVIOUSLY REWORKED AREA. THE PROPELLER BLADE HAD ACCURED 273 FLIGHT HOURS SINCE IT WAS OVERHAULED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE INADEQUATE OVERHAUL OF THE PROPELLER BLADE BY THE OVERHAUL FACILITY. CONTRIBUTING TO THIS ACCIDENT WAS THE ROUGH AND UNEVEN TERRAIN.

## Findings

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

### Findings

1. (F) PROPELLER SYSTEM/ACCESSORIES, BLADE - FAILURE, TOTAL
2. (F) PROPELLER SYSTEM/ACCESSORIES, BLADE - FATIGUE
3. (C) MAINTENANCE, OVERHAUL - INADEQUATE - OTHER MAINTENANCE PERSONNEL

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

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - EMERGENCY

Findings

4. TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	31, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	September 4, 1991
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5500 hours (Total, all aircraft), 300 hours (Total, this make and model), 5300 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AIR TRACTOR	<b>Registration:</b>	N1547P
<b>Model/Series:</b>	AT-401 AT-401	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	401-0861
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	July 30, 1992 100 hour	<b>Certified Max Gross Wt.:</b>	6000 lbs
<b>Time Since Last Inspection:</b>	23 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	273 Hrs	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>		<b>Engine Model/Series:</b>	R-1340-AN1
<b>Registered Owner:</b>	MORRIS, GARY & CONNIE	<b>Rated Power:</b>	600 Horsepower
<b>Operator:</b>	MORRIS, GARY & CONNIE	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>	POSTON SPRAYERS, INC.	<b>Operator Designator Code:</b>	ZCUG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Not reported
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	38°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	22:10 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	34.080268,-114.2201 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Llorente, A.
<b>Additional Participating Persons:</b>	ASI JOHN KNOWLES; SCOTTSDALE , AZ
<b>Original Publish Date:</b>	August 31, 1993
<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=27721">https://data.nts.gov/Docket?ProjectID=27721</a>

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