



# Aviation Investigation Final Report

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<b>Location:</b>	WESTERLY, Rhode Island	<b>Accident Number:</b>	NYC91LA153
<b>Date &amp; Time:</b>	June 1, 1991, 16:00 Local	<b>Registration:</b>	N3227A
<b>Aircraft:</b>	CESSNA 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

THE CESSNA 310 WAS ON FINAL APPROACH WHEN THE PILOT FELT A BUFFET AND LOST POWER IN THE RIGHT ENGINE. HE MADE A MISSED APPROACH AND DIVERTED TO A VFR AIRPORT. HE LANDED WITH THE RIGHT PROPELLER AND RIGHT MAIN LANDING GEAR MISSING FROM THE AIRPLANE, WHICH WERE NEVER RECOVERED. POST ACCIDENT INVESTIGATION DISCLOSED THE THREADS OF THE PROPELLER MOUNTING BOLTS CONTAINED THE THREADS FROM THE PROPELLER HUB. THIS IS INDICATIVE OF THE PROPELLER HUB THREADS HAVING BEEN OVER TORQUED AT SOME TIME IN THEIR LIFE. ADDITIONAL INVESTIGATION DISCLOSED THE PROPELLER HAD LAST BEEN INSTALLED 499 HOURS PRIOR TO PROPELLER SEPARATION. THE AIRPLANE HAD BEEN PLACED IN A PROGRESSIVE INSPECTION PROGRAM WITH 50 HOUR INTERVALS FOR A 200 HOUR CYCLE. THE LOG BOOKS INDICATE THE AIRPLANE HAD BEEN 65 HOURS SINCE ITS LAST INSPECTION.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER INSTALLATION OF THE RIGHT PROPELLER WHICH RESULTED IN THREAD FAILURE IN THE PROPELLER HUB AND SEPARATION OF THE PROPELLER IN FLIGHT. A FACTOR RELATED TO THE ACCIDENT WAS THE RIGHT PROPELLER STRIKING THE RIGHT MAIN LANDING GEAR CAUSING ITS SEPARATION FROM THE AIRPLANE AS THE PROPELLER DEPARTED THE AIRPLANE.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

### Findings

1. (C) MAINTENANCE, INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
2. (C) PROPELLER SYSTEM/ACCESSORIES, HUB - OVERTORQUE
3. (C) PROPELLER SYSTEM/ACCESSORIES - SEPARATION
4. LANDING GEAR, MAIN GEAR - SEPARATION

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 28, 1990
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	491 hours (Total, all aircraft), 91 hours (Total, this make and model), 374 hours (Pilot In Command, all aircraft), 75 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N3227A
<b>Model/Series:</b>	310R 310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	310R 1881
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	February 21, 1991 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>	65 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	679 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-MB
<b>Registered Owner:</b>	PEDRO A. ROMERO	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>	PEDRO A. ROMERO	<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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	HARTFORD , CT (HFD )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	16:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	WESTERLY STATE WST	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	81 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	7	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Precautionary 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>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hancock, Robert
<b>Additional Participating Persons:</b>	ANDRE LAMARRE; BEDFORD , MA
<b>Original Publish Date:</b>	September 28, 1992
<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=36941">https://data.nts.gov/Docket?ProjectID=36941</a>

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