



# Aviation Investigation Final Report

<b>Location:</b>	STUART, Florida	<b>Accident Number:</b>	MIA84LA227
<b>Date &amp; Time:</b>	August 14, 1984, 19:53 Local	<b>Registration:</b>	N7834
<b>Aircraft:</b>	AERO COMMANDER 520	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE ACFT COLLIDED WITH A FENCE AT THE DEPARTURE END OF THE RWY DURING TAKEOFF. THE ACFT TIRES WERE GROSSLY UNDER INFLATED AND THE TURF RWY WAS WET AND SOFT. ONE WITNESS SAID THE ACFT MADE AN INTERSECTION TAKEOFF WITHOUT USING THE ENTIRE RWY LENGTH. AFTER THE COLLISION THE ACFTS RT ENGINE FAILED AND WAS FEATHERED. THE PLT THEN FLEW TO STUART ARPT WHERE FIRE FIGHTING EQUIP WAS AVAILABLE. HE SAID THE NOSE GEAR RETRACTED ON LANDING. EXAMINATION OF THE ACFT BY A LOCAL MECHANIC REVEALED THAT THE RT ENG WAS SEIZED WITH THE OIL COOLER CRUSHED AND RUPTURED REARWARD. NO OIL WAS FOUND IN THE ENGINE. THE TIRE PRESSURES WERE: NOSE-5 PSI, LEFT MAIN-20 PSI, RIGHT MAIN-18 PSI. NORMAL PRESSURE SHOULD HAVE BEEN 60 PSI.

## Probable Cause and Findings

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

### Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (F) TERRAIN CONDITION - WET

2. (F) TERRAIN CONDITION - SOFT
3. (F) LANDING GEAR,TIRE - PRESSURE TOO LOW
4. (C) ALL AVAILABLE RUNWAY - NOT USED - PILOT IN COMMAND
5. (C) JUDGMENT - IMPROPER - PILOT IN COMMAND
6. (C) CLEARANCE - NOT OBTAINED - PILOT IN COMMAND
7. (F) OBJECT - FENCE

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Occurrence #2: NOSE GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

8. (F) LANDING GEAR,NOSE GEAR - FAILURE,TOTAL

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	54, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<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 3 Expired	<b>Last FAA Medical Exam:</b>	July 6, 1982
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1800 hours (Total, all aircraft), 32 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AERO COMMANDER	<b>Registration:</b>	N7834
<b>Model/Series:</b>	520 520	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	520-92
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	February 16, 1984 Annual	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	4303 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	GO-435-C2
<b>Registered Owner:</b>	HARRY J. BASHAM	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	
<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>	VRB ,15 ft msl	<b>Distance from Accident Site:</b>	14 Nautical Miles
<b>Observation Time:</b>	19:48 Local	<b>Direction from Accident Site:</b>	174°
<b>Lowest Cloud Condition:</b>	Scattered / 2000 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	Broken / 30000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	70°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 24°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	INDIANTOWN , FL (X58 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	STUART , FL (SUA )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:15 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	STUART SUA	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	17 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	20	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in

## 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>	26.779005,-80.05989(est)

## Administrative Information

**Investigator In Charge (IIC):** Alston, Andrew

**Additional Participating Persons:** ROBINSON; MIAMI , FL

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=31173>

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