



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	FAYETTEVILLE, AR	<b>Accident Number:</b>	MKC88LA036
<b>Date &amp; Time:</b>	01/01/1988, 1530 CST	<b>Registration:</b>	N30ML
<b>Aircraft:</b>	CESSNA 414	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Instructional

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## Analysis

DURING AN INSTRUCTIONAL FLT, THE CFI AND STUDENT PLT HEARD A LOUD POP WHILE ATTEMPTING TO LOWER THE GEAR IN PREPARATION FOR LANDING. SEVERAL FLYBYS PAST THE CONTROL TOWER WERE MADE TO CONFIRM AN UNSAFE NOSE GEAR CONFIGURATION. THEY FLEW THE AIRCRAFT AN ADDITIONAL HOUR AND A HALF TO LIGHTEN THE FUEL LOAD, ATTEMPTED TO LOWER THE GEAR WITH EMERGENCY PROCEDURES, THEN ATTEMPTED AN EMERGENCY LANDING. THE NOSE GEAR COLLAPSED AND CONSEQUENTLY, THE AIRCRAFT WAS SUBSTANTIALLY DAMAGED. POST FLIGHT INSPECTION REVEALED A FLAT NOSE GEAR STRUT, AND MECHANICAL PROBLEMS IN THE NOSE GEAR STRUT ASSEMBLY.

## Probable Cause and Findings

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

## Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING

### Findings

1. (F) LANDING GEAR,NOSE GEAR ASSEMBLY - FAILURE,PARTIAL
2. EMERGENCY PROCEDURE - ATTEMPTED

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

### Findings

3. (C) LANDING GEAR,NOSE GEAR - MOVEMENT RESTRICTED
4. (F) LANDING GEAR,NOSE GEAR STRUT - PRESSURE TOO LOW
5. (C) LANDING GEAR,NOSE GEAR ASSEMBLY - JAMMED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	24, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	10/14/1987
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1751 hours (Total, all aircraft), 50 hours (Total, this make and model), 1625 hours (Pilot In Command, all aircraft), 147 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N30ML
<b>Model/Series:</b>	414 414	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	414 0005
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	11/23/1987, Annual	<b>Certified Max Gross Wt.:</b>	6350 lbs
<b>Time Since Last Inspection:</b>	18 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	4198 Hours	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	TSIO-520J
<b>Registered Owner:</b>	ROBERT H LEWIS	<b>Rated Power:</b>	310 hp
<b>Operator:</b>	ROBERT H. LEWIS	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FYV, 1251 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1450 CST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	Overcast / 25000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	1°C / -8°C
Precipitation and Obscuration:			
Departure Point:	ROGERS, AR (ROG)	Type of Flight Plan Filed:	None
Destination:	FAYETTEVILLE, AR (FYV)	Type of Clearance:	None
Departure Time:	1315 CDT	Type of Airspace:	Class D

## Airport Information

Airport:	FAYETTEVILLE (FYV)	Runway Surface Type:	Asphalt
Airport Elevation:	1251 ft	Runway Surface Condition:	Dry
Runway Used:	34	IFR Approach:	None
Runway Length/Width:	6006 ft / 100 ft	VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	JOHN R HRUBAN	Report Date:	07/10/1989
Additional Participating Persons:	TOM GLISTA		
Publish Date:			
Investigation Docket:	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 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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).