



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	FRESNO, CA	<b>Accident Number:</b>	LAX93LA058
<b>Date &amp; Time:</b>	12/02/1992, 1709 PST	<b>Registration:</b>	N80142
<b>Aircraft:</b>	ROBINSON R-22 BETA	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Aerial Observation		

## Analysis

THE HELICOPTER TAIL ROTOR GEAR BOX AND THE VERTICAL FIN SEPARATED DURING CRUISE FLIGHT. THE PILOT WAS ABLE TO LAND THE HELICOPTER IN A FLOOD BASIN. THE WRECKAGE EXAMINATION DISCLOSED THAT THE FUEL CAP CAME OFF THE FUEL TANK AND STRUCK A TAIL ROTOR BLADE. THE TAIL ROTOR BLADE BALANCE WEIGHT SEPARATED AS DID THE ENTIRE VERTICAL FIN. THE TAIL ROTOR ASSEMBLY REMAINED ATTACHED TO THE HELICOPTER BY ITS PITCH CHANGE CONNECTING ROD. METALLURGICAL EXAMINATION OF THE SEPARATED PARTS DISCLOSED NO EVIDENCE OF ANY PREEXISTING CRACKING OR FATIGUE. THE POROSITY LEVEL OF THE VERTICAL FIN BULKHEAD CASTING WAS WITHIN NORMAL LIMITS.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INADEQUATE PREFLIGHT. CONTRIBUTING TO THIS ACCIDENT WAS THE SEPARATION OF THE FUEL CAP, TAIL ROTOR BLADE BALANCE WEIGHT, TAIL ROTOR GEAR BOX, AND THE VERTICAL FIN.

## Findings

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

### Findings

1. (F) FUEL SYSTEM,CAP - SEPARATION
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. (F) ROTOR SYSTEM,TAIL ROTOR BLADE BALANCE WEIGHTS - SEPARATION
4. ROTOR SYSTEM,TAIL ROTOR BLADE BALANCE WEIGHTS - OVERLOAD
5. (F) ROTOR DRIVE SYSTEM,TAIL ROTOR GEARBOX(90 DEG) - SEPARATION
6. ROTOR DRIVE SYSTEM,TAIL ROTOR GEARBOX(90 DEG) - OVERLOAD
7. (F) VERTICAL STABILIZER ATTACHMENT - SEPARATION
8. VERTICAL STABILIZER ATTACHMENT - OVERLOAD

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

Occurrence #3: HARD LANDING  
Phase of Operation: DESCENT - EMERGENCY

## Findings

### 9. TERRAIN CONDITION - NONE SUITABLE

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	36
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	5130 hours (Total, all aircraft), 2667 hours (Total, this make and model), 156 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROBINSON	<b>Registration:</b>	N80142
<b>Model/Series:</b>	R-22 BETA R-22 BETA	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	HENRY BROADCASTING CO.	<b>Engine Manufacturer:</b>	LYCOMING
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	O-320-B2C
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Aerial Observation		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Night/Dark
<b>Observation Facility, Elevation:</b>	, 0 ft msl	<b>Weather Information Source:</b>	Pilot
<b>Lowest Ceiling:</b>	Overcast / 7000 ft agl	<b>Wind Speed/Gusts, Direction:</b>	/ ,
<b>Temperature:</b>	10° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	<b>Destination:</b>		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<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

Investigator In Charge (IIC): A. D Llorente

Adopted Date: 09/14/1993

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 [pubinq@ntsb.gov](mailto:pubinq@ntsb.gov), or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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