



National Transportation Safety Board Aviation Accident Data Summary

| | | | |
|--------------------------------|------------------------|-------------------------|------------|
| Location: | GALAX, VA | Accident Number: | BFO90DOA01 |
| Date & Time: | 08/01/1990, 1915 EDT | Registration: | N152RR |
| Aircraft: | BELL TH-1L | Injuries: | 1 Minor |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

THE PLT WAS AERIAL SPRAYING AT 100 AGL. THE AIRSPEED WAS 33 MPH. WHEN THE ENGINE STALLED SEVERAL TIMES BEFORE TOTAL POWER LOSS OCCURRED. THE PLT DID AN AUTOROTATION AND LANDED IN TREES. THE INVESTIGATION DID NOT REVEAL EVIDENCE OF MECHANICAL MALFUNCTION.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOST OF ENGINE POWER BECAUSE OF A COMPRESSOR STALL.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. COMPRESSOR ASSEMBLY - STALL

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

Occurrence #3: PROPELLER/ROTOR CONTACT TO PERSON
Phase of Operation: LANDING

Findings

2. TERRAIN CONDITION - NONE SUITABLE
3. OBJECT - TREE(S)

Pilot Information

| | | | |
|----------------------------------|--|------------------------------|------------|
| Certificate: | Commercial | Age: | 48 |
| Airplane Rating(s): | None | Instrument Rating(s): | Helicopter |
| Other Aircraft Rating(s): | Helicopter | Instructor Rating(s): | None |
| Flight Time: | 3698 hours (Total, all aircraft), 1600 hours (Total, this make and model), 3000 hours (Pilot In Command, all aircraft), 144 hours (Last 90 days, all aircraft), 48 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|---------------------------------------|-----------------------------|-----------------------------|---------------|
| Aircraft Make: | BELL | Registration: | N152RR |
| Model/Series: | TH-1L TH-1L | Engines: | 1 Turbo Shaft |
| Operator: | RANGER HELICOPTERS SERVICES | Engine Manufacturer: | LYCOMING |
| Operating Certificate(s) Held: | | Engine Model/Series: | T53-L-13B |
| Flight Conducted Under: | Part 137: Agricultural | | |

Meteorological Information and Flight Plan

| | | | |
|---|----------------------|-------------------------------------|------------------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | ROA, 1176 ft msl | Weather Information Source: | Weather Observation Facility |
| Lowest Ceiling: | None / 0 ft agl | Wind Speed/Gusts, Direction: | 6 knots / , 360° |
| Temperature: | 28° C | Visibility | 35 Miles |
| Precipitation and Obscuration: | | | |
| Departure Point: | HILLSVILLE, VA (HLX) | Destination: | |

Airport Information

| | | | |
|-----------------------------|---|----------------------------------|--|
| Airport: | | Runway Surface Type: | |
| Runway Used: | 0 | Runway Surface Condition: | |
| Runway Length/Width: | | | |

Wreckage and Impact Information

| | | | |
|-----------------------------|---------|----------------------------|-------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Latitude, Longitude: | | | |

Administrative Information

Investigator In Charge (IIC): KENNETH R LEIGHTON

Adopted Date: 03/12/1993

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, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.