



National Transportation Safety Board Aviation Accident Data Summary

Location:	KNOXVILLE, TN	Accident Number:	ATL84FA277
Date & Time:	09/01/1984, 1715 EDT	Registration:	N22299
Aircraft:	BELL 222	Injuries:	1 Serious, 4 Minor
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

THE HELICOPTER WAS IN A HOVER WHEN A RT PEDAL TURN WAS INITIATED AND A CLIMB ATTEMPTED. PLT STATED, 'I WAS UNABLE TO CLIMB, AND THE AIRCRAFT BEGAN TO LOSE ROTOR RPM. I INCREASED POWER TO 100% MRTQ. THE ACFT WAS SETTling.' UNABLE TO SUSTAIN FLT, A LANDING WAS MADE AT A ROAD INTERSECTION DURING WHICH 3 VEHICLES WERE DAMAGED. THE ACFT WAS SUBSTANTIALLY DAMAGED BY FIRE. INSPECTION & TESTING REVEALED THE TORQUE CONTROL UNIT, P/N 222-360-010-101, WHICH LIMITS THE AMT OF COMBINED ENG TORQUE DELIVERED TO THE MAIN TRANSMISSION, WAS ADJUSTED TO 46.0 PSI. ACCORDING TO BELL MAINTENANCE MANUALS, THE UNIT SHOULD BE SET AT 48.5 PSI (+1.5/-0.0). THE UNIT WAS INSTALLED IN THE ACFT ON 3/1/82. IT COULD NOT BE DETERMINED IF THE UNIT WAS ADJUSTED AT THE TIME OF INSTALLATION OR AFTER.

Probable Cause

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: CLIMB

Findings

1. MISC ROTORCRAFT - PRESSURE TOO LOW
2. (C) MAINTENANCE - INADEQUATE

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

3. OBJECT - VEHICLE

Occurrence #4: FIRE
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. FUEL SYSTEM,DRAIN - OVERLOAD

5. FUEL SYSTEM - FAILURE,PARTIAL

Pilot Information

Certificate:	Airline Transport	Age:	34
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	
Flight Time:	4564 hours (Total, all aircraft), 3 hours (Total, this make and model), 2464 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N22299
Model/Series:	222 222	Engines:	2 Turbo Shaft
Operator:	BELL HELICOPTER	Engine Manufacturer:	LYCOMING
Operating Certificate(s) Held:	None	Engine Model/Series:	LT101-650C3A
Flight Conducted Under:	Part 91: General Aviation - Business		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TYS, 981 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	Calm / ,
Temperature:	31 °C	Visibility	15 Miles
Precipitation and Obscuration:			
Departure Point:	KNOXVILLE, TN	Destination:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Serious, 2 Minor	Aircraft Fire:	On-Ground
Ground Injuries:	1 Minor	Aircraft Explosion:	On-Ground
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): PHILLIP POWELL

Adopted 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 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.