



National Transportation Safety Board Aviation Accident Final Report

Location:	PORT ELIZABETH, NJ	Accident Number:	NYC85FA092
Date & Time:	04/01/1985, 0740 EST	Registration:	N90885
Aircraft:	SIKORSKY S-55B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Analysis

THE HELICOPTER LANDED HARD AFTER A DECREASE IN RPM DURING INITIAL CLIMB. THE ACFT WAS BEING USED FOR A SLING OPERATION. INVESTIGATION REVEALED A FAILED CLUTCH ASSEMBLY, S1435-2500-1. THE CLUTCH HAD OPERATED ONLY 200 HRS SINCE A MAJOR OVERHAUL.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) ROTOR DRIVE SYSTEM,CLUTCH ASSEMBLY - FAILURE,TOTAL
 2. (C) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
 3. (C) MAINTENANCE,INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL
 4. (C) MAINTENANCE,MAJOR REPAIR - IMPROPER - OTHER MAINTENANCE PERSONNEL
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Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	42, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/30/1985
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	5888 hours (Total, all aircraft), 148 hours (Total, this make and model), 5580 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SIKORSKY	Registration:	N90885
Model/Series:	S-55B S-55B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	553185
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	01/04/1985, 100 Hour	Certified Max Gross Wt.:	7200 lbs
Time Since Last Inspection:	1 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3442 Hours	Engine Manufacturer:	WRIGHT
ELT:	Not installed	Engine Model/Series:	R-1300-3D
Registered Owner:	CORDOBA HELICOPTER, INC	Rated Power:	600 hp
Operator:	CORDOBA HELICOPTER, INC	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EWR, 18 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0740 EST	Direction from Accident Site:	135°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

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
Total Injuries:	1 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	MICHAEL T KUZENKO	Report Date:	
Additional Participating Persons:	JOSEPH 1 BENNETT; TETERBORO, NJ		
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 pubinquiry@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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).