Aviation Investigation Final Report

Location:	KANEOHE, Hawaii	**Accident Number:**	LAX97LA204
Date & Time:	June 6, 1997, 10:45 Local	**Registration:**	N64F
Aircraft:	Bell 204-B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

The helicopter pilot was preparing to sling a metal utility pole. As he picked up the load, one of the sling lines snagged. Although ground personnel saw what was happening, the line slipped off before they were able to radio the pilot. The pilot had not verified the security of the load. When this occurred, a shock was transmitted through the airframe to the main rotor system. The pilot felt a resonance and put the load back on the ground. The resonance increased, however, and the pilot jettisoned the sling. The pilot reported that the control response had become mushy, and he believed he was losing control of the helicopter, so he initiated a precautionary landing. The helicopter was over sloping terrain, and as it touched down, the stinger and tail rotor struck the ground.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to verify that the load was properly rigged before attempting to pick it up. The uneven (sloping) terrain was a related factor.

Findings

Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: HOVER - OUT OF GROUND EFFECT

Findings
1. LIGHT CONDITION - DAYLIGHT

2. (C) SECURITY OF CARGO - NOT VERIFIED - PILOT IN COMMAND
3. EXTERNAL LOAD SLING/HARNESS - SLIPPED
4. ROTOR SYSTEM,MAIN ROTOR - VIBRATION

Occurrence #2: HARD LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings
5. PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND
6. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On June 6, 1997, at 1045 hours Hawaiian standard time, a Bell 204-B helicopter, N64F, made a hard landing near Kaneohe, Oahu, Hawaii. The aircraft sustained substantial damage; however, the pilot, the sole occupant, was not injured. The aircraft was being operated as an external load flight by Pacific Helicopter Tours, Inc., under 14 CFR Part 133 when the accident occurred. The flight originated in Honolulu, Hawaii, at 0730 that morning. Visual meteorological conditions prevailed and a company VFR flight plan was filed.

According to the pilot, the aircraft was at a 50-foot hover as ground riggers were connecting slings to a 40-foot section of a metal utility pole. As he picked up the load, one of the sling lines snagged on the pole end cap. Although the riggers saw what was happening, the line slipped off the end cap before they were able to radio the pilot to put the load back on the ground. The pilot had not verified the security of the load. When the line slipped, a shock was transmitted through the airframe as a 1-to-1 vertical vibration to the main rotor system. The pilot felt the resonance and put the pole back on the ground; however, as the load settled the resonance increased. The pilot jettisoned the sling but the controls were becoming mushy. At this point he felt he was losing aircraft control and so he initiated a precautionary landing. The aircraft was over a 15-degree upslope when the aircraft touched down and the stinger and tailrotor struck the ground. The tail rotor driveshaft was severed and the tailrotor and tail rotor gearbox both separated from the vertical stabilizer.

According to the manufacturer, an aircraft with the same serial number was registered as N8511F and was operated by Air America until it was reported destroyed in Viet Nam in 1966. This information was not reflected in the FAA aircraft data file.

Pilot Information

Certificate:	Commercial	**Age:**	33,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	January 19, 1997
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	5275 hours (Total, all aircraft), 200 hours (Total, this make and model), 5115 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 55 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	**Registration:**	N64F
Model/Series:	204-B 204-B	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	2027
Landing Gear Type:	Skid	**Seats:**	11
Date/Type of Last Inspection:	May 30, 1997 100 hour	**Certified Max Gross Wt.:**	9500 lbs
Time Since Last Inspection:	4 Hrs	**Engines:**	1 Turbo shaft
Airframe Total Time:	6227 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	T-5313B
Registered Owner:	THOMAS HAUPTMAN	**Rated Power:**	1400 Horsepower
Operator:		**Operating Certificate(s) Held:**	Flag carrier (121), On-demand air taxi (135)
Operator Does Business As:	PACIFIC HELICOPTER TOURS, INC.	**Operator Designator Code:**	DBZL

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	HNL ,13 ft msl	**Distance from Accident Site:**	11 Nautical Miles
Observation Time:	11:00 Local	**Direction from Accident Site:**	218°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	**Visibility**	20 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	10°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	23°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	HONOLULU , HI (HNL)	**Type of Flight Plan Filed:**	Company VFR
Destination:		**Type of Clearance:**	None
Departure Time:	07:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	21.410596,-157.789932(est)

Administrative Information

Investigator In Charge (IIC):	Crispin, Robert
Additional Participating Persons:	CLARENCE KANAEI; HONOLULU , HI
Original Publish Date:	December 31, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29807