Aviation Investigation Final Report

Location:	Bay St Louis, Mississippi	**Accident Number:**	DFW08CA010
Date & Time:	October 11, 2007, 06:20 Local	**Registration:**	N997PT
Aircraft:	Eurocopter EC 130	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The commercial pilot was distracted by a short conversation with another pilot during an early morning preflight inspection of the helicopter. Following the preflight inspection of the turbine powered helicopter, the commercial pilot attempted to takeoff with the right side tie-down strap still securing the helicopter to the ground. Approximately 2-to-3- feet above ground level (agl), the pilot felt a tug as the slack was removed from the strap and the helicopter entered a dynamic rollover. The main rotor blades impacted the ground and the helicopter began to spin to the left. The pilot lowered the collective and the helicopter landed hard before coming to rest in an upright position. The pilot was able to exit unassisted. An examination of the helicopter revealed that the tail boom sustained structural damage during the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's encounter with dynamic rollover as result of his inadequate preflight inspection.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: HOVER

Findings
1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. DIVERTED ATTENTION - PILOT IN COMMAND

3. GROUND TIE-DOWN ROPE/STRAP - NOT REMOVED - PILOT IN COMMAND
4. (C) DYNAMIC ROLLOVER - ENCOUNTERED - PILOT IN COMMAND

Occurrence #2: HARD LANDING
Phase of Operation: HOVER

Factual Information

The commercial pilot was distracted by a short conversation with another pilot during an early morning preflight inspection of the helicopter. Following the preflight inspection of the turbine powered helicopter, the commercial pilot attempted to takeoff with the right side tie-down strap still securing the helicopter to the ground. Approximately 2-to-3- feet above ground level (agl), the pilot felt a tug as the slack was removed from the strap and the helicopter entered a dynamic rollover. The main rotor blades impacted the ground and the helicopter began to spin to the left. The pilot lowered the collective and the helicopter landed hard before coming to rest in an upright position. The pilot was able to exit unassisted. An examination of the helicopter revealed that the tail boom sustained structural damage during the accident.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	60,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	Helicopter; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	December 1, 2006
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	16000 hours (Total, all aircraft), 500 hours (Total, this make and model), 16000 hours (Pilot In Command, all aircraft), 375 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Eurocopter	**Registration:**	N997PT
Model/Series:	EC 130	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	3809
Landing Gear Type:	Skid	**Seats:**	7
Date/Type of Last Inspection:	September 1, 2007 100 hour	**Certified Max Gross Wt.:**	5350 lbs
Time Since Last Inspection:		**Engines:**	1 Turbo shaft
Airframe Total Time:	2360 Hrs at time of accident	**Engine Manufacturer:**	Turbomeca
ELT:	Installed, not activated	**Engine Model/Series:**	Arriel 2B1
Registered Owner:	Taylor Energy Company LLC	**Rated Power:**	847 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Dawn
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	14°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BAY ST LOUIS, MS (HSA)	**Type of Flight Plan Filed:**	Unknown
Destination:	PATTERSON, LA (PTN)	**Type of Clearance:**	None
Departure Time:	06:20 Local	**Type of Airspace:**	

Airport Information

Airport:	STENNIS INTL HSA	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

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:**	30.368333,-89.455001

Administrative Information

Investigator In Charge (IIC):	LeBaron, Timothy
Additional Participating Persons:	Larry Wells; Jackson, MS; Jackson, MS, MS
Original Publish Date:	December 20, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66892