



National Transportation Safety Board Aviation Accident Factual Report

Location:	LAFAYETTE, LA	Accident Number:	FTW97LA001
Date & Time:	10/01/1996, 0900 CST	Registration:	N7MH
Aircraft:	CONTINENTAL COPTERS EL TOMCAT MK-5A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

On October 1, 1996, approximately 0900 central standard time, a Continental Copters-Darling El Tomcat MK-5A helicopter, N7MH, was substantially damaged after impacting terrain during takeoff near Lafayette, Louisiana. The commercial pilot, sole occupant who owned and operated the agricultural helicopter, sustained serious injuries. Visual meteorological conditions prevailed and no flight plan was filed for the Title 14 CFR Part 137 aerial application flight.

The pilot reported that he and his ground crew were preparing to commence an aerial application job for a farmer who was reportedly "anxious" to get the job underway. The helicopter was transported to the job site on a trailer from which it was normally operated. After a pre-flight, the pilot prepared to take off from the trailer. Upon lift off, the rear portion of the left skid became "snagged" on the left rear tie down. According to a witness and the pilot, the aircraft "pitched up, rolled left", and at "least one of the main rotor blades struck the ground." Subsequently, the skid broke loose from the tie down, and the nose pitched down and impacted the ground. During this sequence, the tail boom separated from the helicopter.

The pilot reported that he and his ground crew were fatigued when they arrived on the job on the morning of the accident. He stated that during a 168 day time period, he had worked 164 days, flown over 400 hours, and spent approximately 656 hours driving to jobs. He reported his normal work day to be 0500 to 2300 (allowing 6 hours for sleep). In an interview with the investigator-in-charge, the pilot stated that he requires an average of 8 hours of sleep per day to feel fully rested. He submitted the following calculations to quantify his reported fatigue: $164 \text{ days} \times 8 = 1312 \text{ hours}$ $164 \text{ days} \times 6 = 984 \text{ hours}$ $1312 \text{ minus } 984 = 328 \text{ hours total sleep deficit in 168 days prior to the accident.}$

The above calculations are similar to data that are currently being studied at the NASA AMES Research Center regarding fatigue and work/sleep cycles in the transportation industry. The NTSB and NASA sponsored a "Fatigue Symposium" on November 1-2, 1995, at Tyson's Corner, Virginia. The symposium proceedings were published and are available through the NTSB, Office of Public Inquiries, Washington, D.C.

Pilot Information

Certificate:	Commercial	Age:	42, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	01/05/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	11700 hours (Total, all aircraft), 4000 hours (Total, this make and model), 11700 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 150 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CONTINENTAL COPTERS	Registration:	N7MH
Model/Series:	EL TOMCAT MK-5A EL TOMCAT	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	MHTE-7
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	09/01/1996, Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	200 Hours	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	VO-435-A1F
Registered Owner:	KENNETH E. SQUIRES	Rated Power:	260 hp
Operator:	KENNETH E. SQUIRES	Operating Certificate(s) Held:	
Operator Does Business As:	PENN-TEX HELICOPTERS INC.	Operator Designator Code:	PCXG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	2 Miles
Lowest Ceiling:	Overcast / 500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	25° C / 23° C
Precipitation and Obscuration:			
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0900 CST	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALEXANDER LEMISHKO
Additional Participating Persons:	XAVIER RODRIQUEZ; BATON ROUGE, LA
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/ .