



Aviation Investigation Final Report

Location:	Malta, Illinois	Accident Number:	CHI07CA094
Date & Time:	March 26, 2007, 16:45 Local	Registration:	N162MC
Aircraft:	McCall Rotorway 162F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The helicopter sustained substantial damage during a dynamic roll over on takeoff. The pilot made a precautionary landing, in a cornfield, in response to a warning light. After resolving the light issue and during takeoff, the "right skid rose off the ground but the left skid made no attempt to raise and the helicopter abruptly rolled over onto the left skid and continued over until the rotor blades contacted the ground. ... The left skid had sunk into the ground further than it appeared." The pilot reported no mechanical malfunctions with the helicopter. The pilot's safety recommendation stated, "I could have made a ... more [thorough] check of ground conditions before attempting a takeoff."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper use of the rotorcraft flight controls resulting in a dynamic rollover during takeoff. A factor was the soft ground that the left skid encountered.

Findings

Occurrence #1: ROLL OVER
Phase of Operation: TAKEOFF

Findings

1. (F) TERRAIN CONDITION - SOFT

2. (C) ROTORCRAFT FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. (C) DYNAMIC ROLLOVER - ENCOUNTERED - PILOT IN COMMAND

Factual Information

The helicopter sustained substantial damage on impact with terrain when it dynamically rolled over on takeoff following a precautionary landing, in a cornfield, in response to a warning light. The pilot reported, in reference to the takeoff, that the "right skid rose off the ground but the left skid made no attempt to raise and the helicopter abruptly rolled over onto the left skid and continued over until the rotor blades contacted the ground. ... The left skid had sunk into the ground further than it appeared." The pilot reported no mechanical malfunctions with the helicopter. The pilot's safety recommendation stated, "I could have made a ... more [thorough] check of ground conditions before attempting a takeoff."

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	52, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Glider	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	April 1, 2006
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	3892 hours (Total, all aircraft), 33 hours (Total, this make and model), 3853 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	McCall	Registration:	N162MC
Model/Series:	Rotorway 162F	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	6493
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	November 1, 2006 Condition	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	202.3 Hrs as of last inspection	Engine Manufacturer:	Rotorway
ELT:	Not installed	Engine Model/Series:	RI 162
Registered Owner:	Stephen Doonnan/Lon Dienst	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DKB	Distance from Accident Site:	
Observation Time:	16:45 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 4200 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots / 22 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	25°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	DE KALB, IL (DKB)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.933612,-88.705558

Administrative Information

Investigator In Charge (IIC):	Malinowski, Edward
Additional Participating Persons:	James Kennedy; DuPage FSDO, Illinois
Original Publish Date:	June 27, 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.nts.gov/Docket?ProjectID=65492

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