



National Transportation Safety Board

Aviation Accident Data Summary

Location:	Albert Lea, MN	Accident Number:	CEN11CA152
Date & Time:	01/01/2011, 1814 CST	Registration:	N145SM
Aircraft:	EUROCOPTER DEUTSCHLAND GMBH MBB-BK 117 C-2	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

The pilot said that he completed a preflight inspection at the beginning of his shift. He noted that earlier in the day, prior to the accident flight, he verified fuel control settings at the request of one of the mechanics. Both of these required that the engine cowling doors be opened. The pilot stated that prior to the accident flight, he visually checked the security of doors and cowlings, leaking fluids, tie downs, and the overall condition of the aircraft. He reported that after starting the number one engine, the flight medic commented that she heard an unusual sound. He subsequently asked her to check the security of the cowling door latches. When the flight medic returned, she informed him that the latches appeared to be secure. He stated that the flight proceeded without incident until about 1/2-mile from the destination helipad, he heard a loud bang and thump from the rear of the helicopter. Shortly thereafter the helicopter started to vibrate and he thought that the noise and vibration might be something from the rotor system. He elected to continue the approach to the destination helipad and subsequently landed without further incident. A postaccident examination revealed substantial damage to all four main rotor blades. The lower portion of the left engine cowling door was separated. No anomalies were observed with respect to the airframe side of the cowling door latches. The separated portion of the door was not recovered.

Flight Events

Approach - Miscellaneous/other

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight inspection of the engine cowling latches prior the flight, which resulted in the cowling door opening in-flight and striking the main rotor blades.

Findings

Aircraft-Aircraft structures-Doors-Service doors-Inadequate inspection - C
Personnel issues-Task performance-Inspection-Preflight inspection-Pilot - C

Pilot Information

Certificate:	Commercial	Age:	46
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	5520 hours (Total, all aircraft), 130 hours (Total, this make and model), 5520 hours (Pilot In Command, all aircraft), 54 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	EUROCOPTER DEUTSCHLAND GMBH	Registration:	N145SM
Model/Series:	MBB-BK 117 C-2	Engines:	2 Turbo Shaft
Operator:	Omniflight Helicopters, Inc.	Engine Manufacturer:	Turbomeca
Air Carrier Operating Certificate:	On-demand Air Taxi (135)	Engine Model/Series:	Arriel 1E2
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	RST	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Night	Wind Speed/Gusts, Direction:	19 knots, 270°
Temperature:	-15° C / -18° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Rochester, MN (99MN)	Destination:	Albert Lea, MN (30MN)

Airport Information

Airport:	Albert Lea Medical Center (30MN)	Runway Surface Type:	
Runway Used:	N/A	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Timothy Sorensen	Adopted Date:	05/26/2011
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78154		

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