



National Transportation Safety Board Aviation Accident Final Report

Location:	New Smyrna Beac, FL	Accident Number:	MIA05LA001
Date & Time:	10/01/2004, 1440 EDT	Registration:	N7059F
Aircraft:	Rotorway 162F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot stated that the first 20 minutes of the flight had been uneventful, however, as he turned to return to the departure airport, he noticed a power loss, and that the rotor rpm was at the "low green" portion of the operating range. He said he lowered collective and increased throttle input, but the rpm continued to drop to the "mid- yellow" range. He initiated an autorotation from about 400 feet AGL, and landed the helicopter in the water. Examination of the helicopter and its systems did not reveal any preaccident anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to undetermined reasons, which resulted in the pilot entering autorotation and affecting a forced landing to the water.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. AUTOROTATION

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY LANDING

Factual Information

On October 1, 2004, about 1440 eastern daylight time, a Rotorway 162F helicopter, N7059F, registered to and operated by a private individual, as a Title 14 CFR part 91 personal flight, lost engine power while in cruise flight in New Smyrna Beach, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The private-rated helicopter pilot and passenger were not injured, and the helicopter incurred substantial damage. The flight originated at Spruce Creek Airport, Daytona Beach, Florida, the same day, about 1415.

The pilot stated that he flew the helicopter southbound along the shoreline, and the first 20 minutes of the flight had been uneventful. Just after performing a right turn to return to his departure airport, he said he noticed that the rotor rpm was at the "low green" portion of the operating range, so he lowered collective and increased throttle input, but the rpm continued to drop to the "mid- yellow" range. He said he initiated an autorotation from about 400 feet AGL, and touched down in a level attitude, with zero forward speed and minimum vertical velocity, into the water. He added that shortly after impacting the water the helicopter rolled 90 degrees to the left, and came to rest in about 3 feet of water.

After recovery from the water, the helicopter was examined, and no anomalies were noted. In addition, the engine was removed and shipped to the manufacturer, Rotorway International, Chandler, Arizona, and a detailed examination was performed under the supervision of an FAA inspector. The examination revealed that the engine had accumulated rust consistent with it having been in salt water, however no anomalies were noted. The Fully Automated Digital Electronic Control (FADEC) was examined by the manufacturer, Electronic Concepts & Engineering, Inc., Holland, Ohio, and the damage sustained as a result of the emersion in salt water did not permit recovery of data.

Pilot Information

Certificate:	Flight Instructor; Commercial; Private	Age:	52, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	05/01/2004
Occupational Pilot:		Last Flight Review or Equivalent:	09/01/2004
Flight Time:	20000 hours (Total, all aircraft), 52 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Rotorway	Registration:	N7059F
Model/Series:	162F	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	6725
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	06/01/2004, Annual	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:	7.9 Hours	Engines:	1 Reciprocating
Airframe Total Time:	86.2 Hours at time of accident	Engine Manufacturer:	Rotorway
ELT:	Not installed	Engine Model/Series:	RI-162F
Registered Owner:	Bernd Gogolla	Rated Power:	150 hp
Operator:	Bernd Gogolla	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DAB, 34 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	1353 EDT	Direction from Accident Site:	330°
Lowest Cloud Condition:	Few / 3900 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	31° C / 24° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Daytona beach, FL (7FL6)	Type of Flight Plan Filed:	None
Destination:	(7FL6)	Type of Clearance:	None
Departure Time:	1415 EDT	Type of Airspace:	

Airport Information

Airport:	Massey Ranch Airpark (X50)	Runway Surface Type:	
Airport Elevation:	12 ft	Runway Surface Condition:	
Runway Used:	NA	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

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:	28.978889, -80.925000

Administrative Information

Investigator In Charge (IIC):	John W Lovell	Report Date:	09/13/2005
Additional Participating Persons:	Rich D'Arcy; FAA FSDO; Orlando, FL		
Publish Date:			
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.ntsbt.gov/pubdms/ .		

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