



National Transportation Safety Board Aviation Accident Data Summary

Location:	Mesa, AZ	Accident Number:	LAX07CA262
Date & Time:	09/01/2007, 1546 MST	Registration:	N546SW
Aircraft:	Wessel Vortex	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The gyrocopter collided with high vegetation and rough terrain during a forced autorotation following the in-flight separation of a propeller blade. The pilot reported that the muffler's mounting strap broke during cruise flight, which caused one composite pusher propeller blade to separate. The pilot autorotated to a forced landing in a ravine. During touchdown the gyrocopter rolled over upon impacting 5-foot-high bushes.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the muffler's mounting strap and subsequent loss of engine power due to propeller blade separation during cruise flight. A contributing factor was the unsuitable terrain for a forced landing.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) EXHAUST SYSTEM,MUFFLER - SEPARATION
 2. (C) PROPELLER SYSTEM/ACCESSORIES,BLADE - SEPARATION
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Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

3. AUTOROTATION - PERFORMED - PILOT IN COMMAND
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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) TERRAIN CONDITION - RAVINE
5. (F) TERRAIN CONDITION - HIGH VEGETATION

Pilot Information

Certificate:	Private	Age:	47
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	Gyroplane	Instructor Rating(s):	
Flight Time:	757 hours (Total, all aircraft), 66 hours (Total, this make and model), 36 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Wessel	Registration:	N546SW
Model/Series:	Vortex	Engines:	1 Reciprocating
Operator:	Marvin E. Wessel, Jr.	Engine Manufacturer:	Rotax
Operating Certificate(s) Held:	None	Engine Model/Series:	618
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:		Weather Information Source:	Pilot
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	Light and Variable / ,
Temperature:		Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mesa, AZ (FFZ)	Destination:	Mesa, AZ (FFZ)

Airport Information

Airport:	Falcon Field (FFZ)	Runway Surface Type:	
Runway Used:	NA	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Latitude, Longitude:	33.511667, -111.698333		

Administrative Information

Investigator In Charge (IIC):	Wayne Pollack	Adopted Date:	11/29/2007
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
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/ .		

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