

ACCIDENT

Aircraft Type and Registration:	Rotorsport Cavalon gyroplane, G-RDNY	
No & Type of Engines:	1 Rotax 914-UL piston engine	
Year of Manufacture:	2013 (Serial no: RSUK/CVLN/004)	
Date & Time (UTC):	5 March 2014 at 1512 hrs	
Location:	Lydd Airport, Kent	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Substantial to airframe, rotor strike marks on runway	
Commander's Licence:	Student Pilot	
Commander's Age:	56 years	
Commander's Flying Experience:	122 hours (of which 95 were on type) Last 90 days - 10 hours Last 28 days - 7 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and ATS Occurrence Report	

Synopsis

The student pilot used an incorrect takeoff technique and lost control of the gyroplane as it became airborne. The gyroplane struck the runway and came to rest on its side, suffering extensive damage. The student pilot, who was uninjured, vacated the gyroplane without assistance.

History of the flight

The student pilot was undertaking a cross-country training exercise from his home base at North Weald Airfield. Weather conditions were fine, with light south-westerly winds. He flew three visual circuits with his instructor before departing North Weald for Holmbeck Farm Airfield near Leighton Buzzard. The plan was then to fly on to Lydd Airport before returning to North Weald.

The first two flights were uneventful. The student pilot took a short break while on the ground at Lydd before preparing for the flight back to North Weald. Start-up and taxi were normal, as were pre-takeoff checks.

The aircraft entered Runway 21 for departure. The student pilot set 2,000 engine rpm, pre-rotated the rotor to 220 rpm and increased engine rpm to 4,000 before releasing the wheel brakes. He then increased power and monitored the airspeed, which increased

rapidly. At 50 kt, he initiated a rotation with a small rearward movement of the control stick. However, the gyroplane pitched up severely, causing the keel and tail to strike the ground and detach. The rest of the gyroplane became airborne for a short while before rolling to the right, causing first the rotor blades, then the fuselage, to strike the runway. The gyroplane came to rest on its right side. The pilot made the switches safe before vacating through the right hand side door to await the airfield emergency services.

Assessment of cause

The student pilot identified a handling error, in that he had not moved the control stick aft before starting the takeoff run. He attributed this to a reversion to a fixed wing takeoff technique, but could not identify a potential reason for the lapse. His instructor commented that the control stick should have been eased aft once the rotor rpm had been achieved during pre-rotation, and before applying the required power for takeoff. He noted that the student had never previously failed to use the correct technique and that there had been no indication that he was at risk of doing so.

BULLETIN CORRECTION

The tabled information at the beginning of the report incorrectly stated that the injuries to the pilot were **minor** whereas, as correctly described in the synopsis, **no injuries** were sustained.

The online version of this report was corrected on 24 July 2014.