ACCIDENT

Aircraft Type and Registration:	Rotorsport UK MT-03, G-RTIN	
No & Type of Engines:	1 Rotax 914-UL piston engine	
Year of Manufacture:	2008 (Serial no: RSUK/MT-03/047)	
Date & Time (UTC):	13 February 2017 at 1300 hrs	
Location:	Turweston Aerodrome, Northamptonshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Severe damage to rotor assembly and propeller, plus damage to vertical stabiliser, nosecone and right wheel spat	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	45 years	
Commander's Flying Experience:	915 hours (of which 461 were on type) Last 90 days - 77 hours Last 28 days - 29 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further AAIB enquiries	

Synopsis

After landing directly into wind, the student pilot began taxiing the gyroplane and made a turn to the right. During this turn the control stick moved right without restraint and, with the assistance of the wind which was now from the left of the nose, the gyroplane rolled to the right. The instructor was unable to correct the stick position before the rotor struck the ground, and the gyroplane rolled over onto its right side.

History of the flight

The aim of the flight was for the student pilot to refine his takeoffs and landings with "hops" along the paved Runway 09 at Turweston. Each hop consisted of a takeoff, a short level flight a few feet above the runway, and then a landing. Visibility was good, and the wind was estimated to be from 090º and fairly steady at 13 kt.

Following each landing the gyroplane was stopped and then taxied back to the takeoff point, after being turned left through 180º. To create enough space on the runway for a 180º left turn, the gyroplane was initially turned right and taxied towards the edge of the runway. After the first two "hops", the instructor took control as they taxied and debriefed the student on the previous manoeuvre. During the next "hops", the instructor took control of the throttle only whilst they were airborne, so the student could concentrate on his control

stick inputs. The instructor believed the handover of control was always executed clearly, using appropriate “I have control” and “you have control” announcements.

Following the fifth landing and with the gyroplane stopped, the instructor recalled handing control of the throttle back to the student. The instructor reported that as the right turn began, he believed the student was in full control, the control stick was fully forward and he, the instructor, was “covering” it to prevent any inappropriate rearwards movement of the stick. At this stage, with the wind from the left of the nose, the control stick moved right quickly.

The gyroplane rolled right and the instructor was unable to intervene before he felt he had to withdraw his arms and brace for impact with the ground. When the gyroplane came to rest, the instructor made an appropriate radio call on the air/ground frequency, before he and the student unstrapped and vacated the open cockpit.

Student’s recollection

The student was unsure of the precise accident sequence although he remembered landing and coming to a halt before he moved the control stick fully forward. He thought he then detected the instructor making inputs on the control stick and, as there had been a lot of changing of control during the flight, he assumed the instructor was now controlling the stick. When they taxied forward he believes he was steering with the foot pedals to turn right and he recalled the control stick moving quickly right before the gyrocopter over-turned.

Instructor’s assessment

Although the instructor was sure that neither he took control, nor did the student offer him control before taxiing commenced, he appreciated that the previous exchanges of control/partial control might have confused the student, who he assessed was in a high workload situation. It was unclear how the control stick initially moved to the right but, once this happened and the gyroplane started turning right, the underside of the rotor disc was exposed to the wind, which was now from the left of the nose. With a relatively high rotor speed and a brisk wind, the rotor probably lifted quickly, moving the control stick further right and rolling the gyroplane rapidly right.

The instructor has stated that he now ensures the rotor rpm is slower before taxiing commences, and that he is more vigilant for circumstances that require him to assume control.