

**BULLETIN ADDENDUM**

<b>Aircraft Type and Registration:</b>	Rotorsport UK Calidus, G-ETOJ
<b>Date &amp; Time (UTC):</b>	29 September 2012 at 1618 hrs
<b>Location:</b>	Shoreham Airport, West Sussex
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot

**AAIB Bulletin No 1/2013, page 73 refers**

Following the publication of the report into the accident to G-ETOJ in Issue 1/2013 of the AAIB Bulletin, the pilot has asked that it include mention of a possible factor which he feels may have contributed to the apparent over-rotation of the gyrocopter on takeoff. He stated that he was aware of a number of anecdotal reports where inadvertent operation of the electro-pneumatic trim system in a fully nose-up direction during the ground roll had been encountered.

G-ETOJ had a two-axis trim system, powered by an electrical pneumatic motor which builds up pressure in pitch and roll cylinders attached to the flying controls. The system is signalled by buttons on the top of the control column (stick), four for trim and one for pre-rotator engagement. Other models used a 'coolie hat' arrangement for trim. In the Calidus, when trimmed fully nose-down, the pitch cylinder is unpressurised but when nose-up trim is required, the pilot presses the aft button of the four, opening a valve and operating the electric motor. When sufficient pneumatic pressure has built up in the nose-up sense, the pilot releases the button, closing the valve and trapping the pressure. This pressure, which is displayed on a gauge mounted on the instrument panel, is therefore an indication of the amount of nose-up trim applied. Pressing the forward nose-down button progressively releases the air in the cylinder.

The pilot of G-ETOJ stated that he had heard reports of one or more instances where, when applying fully aft stick at commencement of the takeoff roll, the nose-up trim button was accidentally pressed. This was reportedly more likely when the pilot was of larger build and could occur if the stick top made contact with the seat harness buckle. The AAIB consulted a recognised authority on gyroplane flying who had experience of the Calidus fitted with this type of stick top and he confirmed that inadvertent trim application had occurred to him on about six occasions, although apparently without incident.

It should be noted that the trim does not apply extra pitch authority when the stick is already fully back. It could, however, be construed as a restriction when checking forward as required when the nosewheel lifts off, which the pilot did not report. However, the agent has agreed to incorporate a caution in the next edition of the Pilot's Operating Handbook for the Calidus.