



Safety recommendation no. 505

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Safety deficit	<p>On 12th July 2013, a Flight Design CTLS-ELA aircraft took off from La Côte for a flight to Neuchâtel. When flying over the trees at the end of runway 4, the engine began to sputter and then cut out suddenly. The pilot was able to perform an emergency landing. The cause of the insufficient fuel supply was established as being the design of the fuel system which could not sufficiently eliminate emerging gas bubbles. Tests carried out by the aircraft manufacturer showed that a fuel return pipe into the tank eliminates the gas bubbles.</p> <p>No electric fuel pump was fitted in the aircraft involved even though it was stipulated in the German edition of the installation manual.</p>
Safety recommendation	<p>In collaboration with aircraft manufacturer Flight Design GmbH, the European Aviation Safety Agency (EASA) should ensure that the manufacturer takes suitable measures to minimise the development of gas bubbles in the fuel system of Flight Design CTLS aircraft and to ensure that any gas bubbles that may be present are sufficiently eliminated.</p>
Addressees	EASA Europäische Agentur für Flugsicherheit
Stage of the implementation	<p>Not implemented. In a letter dated 7th June 2016, the EASA advised that it has investigated the topic with the type certificate holder Flight Design, which carried out further tests on the aircraft involved in the serious incident and was able to detect neither a warning about low fuel pressure nor the engine cutting out. Based on these findings, the EASA believes that despite the possible presence of gas bubbles, the fuel system is reliable and robust, and that no other measures need to be taken.</p>
Investigation report concerning the safety recommendation	<p><u>Schlussbericht</u> <u>Rapport final</u></p>