

**Agusta Westland AW139,  
G-LBAL**

**Near Gillingham Hall,  
Norfolk**

**13 March 2014**

**Accident**

**Safety Recommendation 2015-024**

The Federal Aviation Authority should amend its definition of Vmini, to reflect the legitimacy of flight under instrument flight rules by reference to external visual cues at speeds below Vmini.

**Date Safety Recommendation made:**

6 November 2015

**LATEST RESPONSE**

**Response received:**

28 March 2017

When the airworthiness standards for helicopter instrument flight were codified, the FAA stated that the term "Vmini" constitutes the minimum speed authorized for all instrument flight conditions. Vmini is the lowest authorized airspeed for instrument flight rules (IFR) climb, cruise, descent, and approach conditions, and it represents the minimum speed at which the helicopter complies with all IFR handling quality requirements found in Appendix B to Title 14, Code of Federal Regulations (CFR) Part 29.

All takeoffs are conducted with a minimum visibility or visual contact with the surrounding environment in accordance with the applicable operational regulations. According to the FAA's Instrument Procedures Handbook (FAA-H-8083-16A), a pilot operating under 14 CFR part 91 has no takeoff minimums to comply with other than the requirement to attain Vmini before entering instrument meteorological conditions. For takeoffs under other operational rules, the visibility minimum for helicopters is generally a ½ mile, which is well within the required distance to attain Vmini.

The FAA does not agree that the definition of Vmini needs to be amended as it is clear what its intent is, as well as how it is treated operationally. We believe we have satisfactorily responded to this safety recommendation and plan no further action.

**AAIB Assessment – Not Adequate - Closed**

**RESPONSE HISTORY**

**Response received:**

24 February 2016

The FAA has received and is reviewing this recommendation to determine the most appropriate course of action to meet its intent. The FAA expect to provide an updated response to this safety recommendation by August 31, 2016.

**Previous AAIB Assessment – Not Adequate - Open**

**Agusta Westland AW139,  
G-LBAL**

**Near Gillingham Hall,  
Norfolk**

**13 March 2014**

**Accident**

**Safety Recommendation 2015-025**

The European Aviation Safety Agency should amend its definition of V<sub>mini</sub>, to provide a clear definition that reflects the legitimacy of flight under instrument flight rules by reference to external visual cues at speeds below V<sub>mini</sub>.

**Date Safety Recommendation made:**

6 November 2015

**LATEST RESPONSE**

**Response received:**

29 December 2015

VMINI is the minimum speed which is determined during the certification process in order to comply with the handling quality requirements for operation under instrument flight rules (IFR). It is provided to ensure that the helicopter is stable enough to allow safe flight according to IFR rules.

During operation, transitioning to IFR is carried out according to the published procedural requirements or air traffic control requirements. This entails minimum visibility and altitude requirements. In addition, at the time of the transition point, the airspeed must be equal or above VMINI.

CS-29 defines VMINI in the context of Book 1 Appendix B dedicated to Airworthiness Criteria For Helicopter Instrument Flight.

In addition, CS-29 Book 2 refers to FAA AC 29-2C which provides a definition of VMINI (see chapter 2, page G-2) in the chapter dedicated to operating limitations:

"VMINI (Minimum IFR Speed). The minimum speed for which compliance with the IFR handling qualities requirements has been demonstrated should be established as a limit for IFR operations."

The Agency considers that the provisions above, harmonised with the FAA, adequately reflect the purpose of VMINI for aircraft certification. It is not aimed at defining the conditions under which a transition to IFR can be made, for which visual cues is one element among others.

**AAIB Assessment – Not Adequate - Closed**

**RESPONSE HISTORY**

N/A