

 <p>European Aviation Safety Agency</p>	EQUIVALENT LEVEL OF SAFETY Pilot Compartment	Doc. No. : ELOS-DVLA.0771-01 Issue : 1-Draft_02 Date : 02-Mar-2010 Ref. : CRI D-101 Page : 1 of 1
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SUBJECT : **Pilot Compartment - Propeller Disc Clearance**
CERTIFICATION SPECIFICATION : VLA.771 (b)
PRIMARY GROUP / PANEL : Panel 08 (Cabin Safety)
SECONDARY GROUPE / PANEL : Panel 03 (Structure)

EQUIVALENT LEVEL OF SAFETY

Pilot Compartment, Propeller Disc Clearance

ELOS CS VLA.771 (b), Pilot Compartment - Propeller Disc Clearance

VLA.771 (b) requires the aerodynamic controls listed in VLA.779, excluding cables and control rods, to be located with respect to the propeller so that no part of the pilot or the controls lies in the region between the plane of rotation of propeller and the surface generated by a line passing through the centre of the propeller hub making an angle of 5° forward or aft of the plane of rotation of the propeller.

The intention of this requirement is to ensure the loss of a propeller blade or parts of it does not endanger the pilot nor disable the cockpit controls.

This intention might also be satisfied by strengthening the structure enough in the critical area and/or by providing impact resistance features, to protect the pilots and controls.

If this approach of strengthening the structure and/or providing impact resistance features is intended to be used, then:

- (b)(1) The most critical impact condition (mass, size and speed of propeller blade fragment, impact angle, etc.) with respect to the structure above the pilot's / co-pilot's feet and yaw control must be determined.
- (b)(2) It must be shown by simulation tests or analysis supported by tests that the propeller fragment of (b)(1) is not possible to endanger the pilot and/or disable the yaw control.