

**Proposed Special Condition B-05 – Normal load factor limiting system  
Applicable to Falcon 7X  
Consultation Paper**

**I. Introductory note:**

The hereby presented Special Condition shall be subject to public consultation, in accordance with EASA Management Board decision 02/04 dated 30 March 2004, Article 3 (2.) of which states:

"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."

**II. Background**

**II.a. Identification of issue**

The Falcon 7X is an executive transport aeroplane with a capacity of 19 passengers maximum. The certification of this aircraft is currently under way. The Falcon 7X is the first Falcon aircraft to be equipped with an Electrical Flight Control System. The certification basis of this aircraft is based on the JAR 25 change 15.

A normal load factor limiting feature is implemented in the flight control laws. As JAR 25 and CS 25 have not yet been amended to reflect the use of normal load factor limiting features, the applicable requirement JAR 25.143 must be adapted.

So, in accordance with Part 21A.16B(a)(1), the EASA team considers that there is a need to define a special condition.

This Special Condition is similar to what has already been applied and accepted by the JAA for the certification of other aircraft equipped with Electrical Flight Control System with load factor limiting feature and the content of this SC is well known. However, this Special Condition has never been published in the Official Publication of the Agency and is considered important enough to require a public consultation

**II.b. EASA position**

The Special Condition B-05 provided in appendix to the CRI B-05 is proposed for application for the Falcon 7X certification.

**II.c. Certification Team and Dassault Aviation positions**

This Special Condition has been agreed by Dassault Aviation and the Dassault Aviation response to this SC has been agreed by the EASA team.

Dassault Aviation agrees that this consultation paper does not contain any proprietary data.

### **III. Proposed Special Condition**

This proposed Special Condition B-05 is part of the Falcon 7X certification basis :

#### **Falcon 7X Special Condition B-05 – Normal load factor limiting system**

##### **Add a new paragraph JAR 25.143 (i) :**

In the absence of other limiting factors

- 1) The positive limiting load factor must not be less than:
  - a) 2.5 g for the EFCS normal state with high lift devices retracted.
  - b) 2.0 g for the EFCS normal state with the high lift devices extended.
  
- 1) The negative limiting load factor must be equal to or more negative than:
  - a) minus 1.0 g for the EFCS normal state with high lift devices retracted.
  - b) 0 g for the EFCS normal state with high lift devices extended.