



Memorandum

U.S. Department
of Transportation

**Federal Aviation
Administration**

Subject: **ACTION:** Alternate Means of Compliance; Joint Aviation Requirements (JAR) 22, Change 5, dated 28 October 1995; Rolladen-Schneider LS-8 Series Certification Basis; Stalling Speed; Finding No. ACE-01-05

Date: JUL 9 2001

From: Manager, Standards Office, ACE-110

Reply to
Attn. of:

To: Manager, Small Airplane Directorate, ACE-100

BACKGROUND:

The Federal Aviation Administration received an application from Rolladen-Schneider Flugzeugbau GmbH for the Model LS-8 series sailplanes. As provided in AC 21.17-2A, Rolladen-Schneider has proposed Joint Aviation Requirements (JAR) 22, Change 5 (JAR 22.49(b)(2)), dated 28 October 1995, as the certification basis for these model sailplanes. However, the LS-8 series sailplanes will have a higher stalling speed; therefore, the LS-8 will follow JAR 22.49(b)(2) with the following exception: (Note: This is the latest amendment to JAR 22 at the time of application.)

- An Alternate Means of Compliance to JAR 22.49(b)(2). This following is the current applicable requirement of JAR 22.49(b):

(b) The stalling speed in the landing configuration must not exceed:

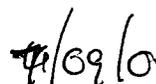
- (1) 80 km/h with
 - (i) airbrakes retracted; and at
 - (ii) maximum weight with water ballast tanks empty.
- (2) 90 km/h with
 - (i) airbrakes retracted or extended, whichever position results in the highest value of the stalling speed; and at
 - (ii) maximum weight and water ballast

The LS-8 does not comply with the required maximum stall speed of 90 km/h at maximum gross weight (including water ballast) with the airbrakes extended. The LS-8 has a stall speed of 92

km/h with the airbrakes extended with maximum water ballast. Rolladen-Schneider has presented a case that the LS-8 landing gear design far exceeds the JAR 22.725 requirement (copy of the rule enclosed) and has requested an alternate means of compliance based on the landing gear design with respect to the stall speed requirement. The landing gear has the capability to absorb a 30 percent increased sink speed with the load factor remaining 12 percent below the allowed requirement.

RECOMMENDATION:

The FAA concurs with the alternate means of compliance to JAR 22.49(b)(2) request by Rolladen Schneider for the Model LS-8 series sailplanes.



Manager, Standards Office, ACE-110

Date

Concurred by:



Manager, Small Airplane Directorate, Aircraft Certification Service

Date

