

Skyfox Aviation (Calair/Hedaro) CA21 and CA22A Series Aeroplanes

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/CA21/10 and issues the following AD under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AD/CA21/10
Amdt 1

Ailerons

10/2000 TX

Applicability: All CA21, CA22 and CA22A series aircraft.

- Requirement:
1. Following instructions approved by a CAR 35 Authorised Person, inspect both the left and right ailerons for:
 - a. Balance;
 - b. Rigging;
 - c. Corrosion, internal and external; and
 - d. Cracks in the joint between the aileron's torque tube and its spar.

Note 1: The reason the Authority is not able to rely on the above inspections being done as part of normal maintenance is that none of the above inspections are included in the maintenance manual. That is the reason for this AD.

2. Following instructions approved by a CAR 35 Authorised Person, improve the sealing and drainage of both left and right ailerons.
3. Following instructions approved by a CAR 35 Authorised Person, inspect both the left and right ailerons for conformity with the type design of the joint between the aileron's torque tube and its spar.

Note 2: In other words, check that the joint was built to drawing.

Compliance: For Requirement 1:

- Inspect before further flight after 24 August 2000.
- Reinspect at the times specified in the instructions approved by the CAR 35 Authorised Person.

Note 3: Inspection for corrosion and cracks is not required before further flight if the ailerons have been inspected since 7 July 2000 by a method approved by either the Authority or a CAR 35 Authorised Person. However, ailerons must be reinspected later at the times specified in instructions approved for Amendment 1 to this Airworthiness Directive by a CAR 35 Authorised Person.

Note 4: CAR 35 Authorised Persons may include in their instructions an option to modify the ailerons to avoid the need for further inspections for corrosion and cracks (Requirements 1c and 1d).

For Requirements 2 and 3: Before further flight after 7 September 2000.

Note 5: The Requirement 3 inspection is not necessary if the joint has been modified to a design approved under CAR 35. See Note 4.

This amendment becomes effective on 24 August 2000.

Background: The Civil Aviation Safety Authority received a report of the in-flight separation of the right hand aileron from a Skyfox CA25N aircraft. Investigation revealed that a failure occurred where the aileron's torque tube attaches to its spar.

Further investigation has not been able to conclusively determine the cause of the failure. However it has revealed several potentially unsafe conditions that were not covered by the original issue of this AD. Therefore Amendment 1 expands the set of potentially unsafe conditions that must be checked before further flight. Also, in the absence of an active Type Certificate holder, Amendment 1 allows technically competent industry representatives to develop and approve their own safety solutions.

The original issue of this Airworthiness Directive became effective on 7 July 2000.



Neville James Probert
Delegate of the Civil Aviation Safety Authority

24 August 2000