

AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of 'Consigne de Navigabilité' ref. : 2001-616(A) R1
In case of any difficulty, reference should be made to the French original issue.

APEX AIRCRAFT

CAP 10B aircraft

Flight envelope limitation (ATA 04)

1. APPLICABILITY:

This Airworthiness Directive concerns CAP 10B aircraft, serial number from 001 to 282 (these two numbers included), which have not been fitted with a spare wood/carbon wing following application of major change 000302.

2. REASONS:

Further to a new fracture in flight of a CAP 10B wing in July 2001, the investigation in process has revealed possible spar damage that the present inspection defined in the manufacturer Service Bulletin SB No. 15 did not allow to detect.

Actually, a simple exceeding of the limit load factors can lead to the creation of compression failures inside the main wing spar. Subsequently, the spreading of these failures, with a CAP 10B operation within the flight envelope, can lead to the weakening of the wing spar and consequently to the fracture in flight within the flight envelope.

Therefore, the fleet may comprise aircraft whose structure does not meet anymore the certification requirements.

The TC holder has set up a new inspection process in order to replace CAP 10B Service Bulletin No. 15 (SB CAP10B-57-003). This new process split up into three distinct inspections (upper spar flange, lower spar flange and landing gear attachment blocks) that are directly integrated into the maintenance program. It is supported by a multimedia support that assists the diagnosis.

In particular, the inspection periodicity has been shortened to prevent the damage from reaching a critical status.

The aim of the original Airworthiness Directive was to limit:

- CAP 10B flight envelope to load factors between +5 and -3,
- the airspeed for positive and negative flick maneuvers to 160 km/h (86 kts).

The present Revision 1 makes the verification of the presence of No. 1 wing rib modification mandatory, defines the conditions to remove the load factors limitation and introduces the repetitive inspections. It replaces the requirements of previous Airworthiness Directives 92-240(A) R1, 94-136(A) and 1999-222(A) R1 which are cancelled.

3. MANDATORY ACTIONS:

3.1. Preliminary check

Check that No. 1 wing rib has been modified according to Service Bulletin CAP 10B No. 16 (CAP 10B-57-004). If not, perform this modification, before next flight.

3.2. Load factors

This limitation can be removed as soon as the performance of the three inspections (upper spar flange, lower spar flange and landing gear attachment blocks) of the new CAP10B maintenance program does not reveal any problem. Record the inspection results in the Aircraft Logbook.

If an inspection reveals a problem, contact the Type Certificate holder (APEX AIRCRAFT, 1 route de Troyes, 21121 DAROIS, FRANCE, fax : +33 3 80 35 65 15, e-mail : airworthiness@apex-aircraft.com) and inform the DGAC (SFACT/N.AG, 50 rue Henry Farman, 75720 PARIS Cedex 15, FRANCE, fax : +33 1 58 09 43 47).

3.3. Flick maneuvers speed limitation

The following limitation is kept: the airspeed for positive and negative flick maneuvers must never exceed 160 km/h (86 kts).

3.4. Repetitive inspections (refer to the maintenance schedule)

The upper and lower spar flanges inspections must be performed:

- at every intermediate inspection (at the latest every 55 flight hours),
- further to a hard or overweight landing,
- further to an overstepping of the airframe limitations.

The landing gear attachment blocks inspection will be performed during the annual inspection.

4. COMPLIANCE:

The actions required in paragraphs 3.1 and 3.2 must be performed at the latest at the next intermediate inspection, i. e. at the latest within the next 55 flight hours following the effective date of this Airworthiness Directive.

REF.: New CAP10B maintenance schedule (issue 1 dated March 01, 2002).
CAP 10B Service Bulletin No. 15 (SB CAP10B-57-003)

This AD has been the subject of a telegraphic diffusion on May 06, 2002.

This Revision 1 replaces original AD 2001-616(A) dated January 09, 2002. It replaces also AD's 92-240(A) R1, 94-136(A) and 1999-222(A) R1 which are cancelled.

EFFECTIVE DATES :

Original AD : Upon receipt of a TAD issued on DECEMBER 14, 2001
Revision 1 : Upon receipt from TAD issued on MAY 06, 2002