

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. : 2003-375(A)
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 (AD) concerns CAP 10B aircraft, serial numbers 01, 02, 03, 04 and from 1 to 282 (these two numbers included), which have not been fitted with a replacement wood/carbon wing following application of major change 000302.

2. REASONS:

2.1. Previous events

Further to a fracture in flight of a CAP 10B wing that occurred in July 2001, the original issuance of AD 2001-616(A) led to new limitations:

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

Further to observations on the involved aircraft, Revision 1 of this AD 2001-616(A) enforced new detailed inspections (upper spar flange, lower spar flange and landing gear attachment blocks) set by the Type Certificate holder new CAP 10B maintenance schedule (issue 1 dated March 01, 2002). After applying the maintenance program, the limitation could be removed and the aircraft flight envelope returned to +6/-4.5.

2.2. Origin of this new AD

Further to a new fracture in flight of a CAP 10B wing in June 2003, the investigation in process seems to point out that a wrong application of CAP 10B Service Bulletin No. 16 (CAP 10B-57-004) would lead to the impossibility of detecting the potential spar damage while performing the Type Certificate holder upper spar flange inspection.

While waiting for the results of the Type Certificate holder investigations, new operating limitations are enforced by this AD that replaces AD 2001-616(A) R1.

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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 so, the actions described below in paragraphs 3.2. to 3.4. must be performed.

If not, the aircraft is not allowed to be operated anymore. Contact the Type Certificate holder to obtain return to flight conditions and inform French DGAC.

3.2. Load factors

The following precautionary measure is made mandatory: for CAP 10B listed in paragraph 1 of this AD, the flight envelope is limited as follows:

- for solo flights from -3.5 to +5;
- when 2 persons on board from -3.5 to +4.3

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).

A temporary placard specifying the two limitations defined in § 3.2. and § 3.3. must be installed in view of the pilot.

No aircraft is allowed to be operated further to an exceeding of these limitations. In this case, contact the Type Certificate Holder and inform French DGAC.

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),
- after a hard or overweight landing,
- after exceeding the airframe limitations.

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

4. COMPLIANCE TIME:

The actions required in paragraphs 3.1., 3.2. and 3.3. must be performed upon receipt of this AD.

CONTACTS:

Type Certificate holder: APEX AIRCRAFT, 1 route de Troyes, 21121 DAROIS

Fax: +33 3 80 35 65 15, e-mail: airworthiness@apex-aircraft.com

DGAC: SFACT/N.AG, 50 rue Henry FARMAN, 75720 PARIS Cedex 15, fax: + 33 1 58 09 43 47

REF.: New CAP 10B maintenance schedule (issue 1 dated March 01, 2002).
CAP 10B Service Bulletin No. 16 (CAP 10B-57-004).

This Airworthiness Directive has been the subject of an Emergency diffusion on September 24, 2003. It replaces AD 2001-616(A) R1 which is cancelled.

EFFECTIVE DATE :

Upon receipt from the Emergency AD issued on SEPTEMBER 24, 2003