

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. : 2002-436(B)
In case of any difficulty, reference should be made to the French original issue.

AIRBUS

A340 aircraft

Take-off performance - Ferry flight with three engines operational (ATA 02)

1. APPLICABILITY:

AIRBUS A340 aircraft, models -211, -212, - 213, -311, -312 and -313, all serial numbers, on which AIRBUS modification 40647 has been embodied in production.

2. REASONS:

During certification of the A340-600, an underestimate of the length of runway necessary for take-off in the case of a ferry flight with one engine failure has been discovered in the OCTOPUS software for the A340-200 and A340-300 series.

This underestimate of the length of runway is the result of calculating the performance using the OCTOPUS software up to its latest version 20.0, which considers the most critical case, that is to say an outer engine failure. In this case, the take-off procedure demands a progressive power setting of the engine symmetrical to the failed or non-operational one. However, the calculations performed by the software in question give the same thrusts in the transient regime for the three operational engines.

This has therefore led to an error in calculation of 650 m of the take-off distance and of the accelerate/stop distance.

This situation, if not corrected, combined with other parameters, in particular high take-off weight (TOW), too short a runway length and high altitude and temperature of the airport, could lead to a dangerous situation for the aircraft during take-off.

In order to prevent these consequences, this Airworthiness Directive (AD) requires the insertion in the flight manual of temporary revision (TR) n°. 6.03.02/05.

3. COMPLIANCE:

The penalty take-off performance, such described below, is rendered mandatory from the effective date of this AD:

« THREE ENGINES FERRY FLIGHT TAKE-OFF PERFORMANCE

The TOD, TOR and ASD, calculated through the Performance Engineering Program/AFM_OCTO approved Flight Manual module at any revision up to revision 20.0 and by selecting the ONE ENGINE-OUT FERRY FLIGHT case in the SELECT FAILURE field of the input data for Flight manual, must be increased by 650 m (2133ft). »

.../...

Note 1: This penalty does not apply to performance calculated using Performance Engineering Program/AFM_OCTO approved Flight Manual module at the revision 21.0 or higher.

Note 2: The procedure mentioned hereabove has been introduced into the Flight Manual by TR n° 6.03.02/05 DGAC approved on August 08, 2002.

Incorporation of this TR or of this AD into the Flight Manual and its taking into account for take-off performance calculation for a ferry flight with three engines, allows to ensure compliance with this AD.

REF.: A340 FM TR n° 6.03.02/05.

EFFECTIVE DATE : AUGUST 31, 2002