



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN EMERGENCY AIRWORTHINESS DIRECTIVE

EAD No.: 2009-02-04

Effective Date: 13 Feb. 2009

The following Brazilian Emergency Airworthiness Directive (EAD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro de Homologação Aeronáutica (RBHA) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

EAD No. 2009-02-04 - EMBRAER - Amendment 39-1262.

APPLICABILITY: This Emergency Airworthiness Directive is applicable to Embraer model EMB-500 airplanes equipped with the stall warning computer part number (P/N) C100106-1.

CANCELLATION / REVISION: Not applicable.

REASON: There is a possibility that during a go around procedure with a flap system failed the stall warning and the stick pusher triggering angles are anticipated reducing the margin between the real angle of attack and the stick pusher triggering angle. If the stick pusher is activated at a low altitude the pilot may be not able to recover the airplane control. Since this condition affects flight safety, an immediate corrective action is required. Thus, sufficient reason exists to request compliance with this EAD in the indicated time limit without prior notice.

REQUIRED ACTION: Inclusion of a temporary limitation to the ANAC-approved airplane flight manual (AFM).

COMPLIANCE: Required as indicated below, unless already accomplished.

Before next flight include in the AFM and follow the procedures and limitations described below. This may be accomplished by inserting a copy of this EAD into the referred section of the AFM.

- (a) Revise the AFM limitation section 2.30 to add the following statement:

FLAPS

Flap FULL must not be used to land in no icing condition.

- (b) Replace the GO-AROUND procedure in AFM Section 3-03, Page 2 by the following procedure. **FLAPS MUST NOT BE RETRACTED DURING GO-AROUND MANEUVER:**

GO-AROUND

TO/GA ButtonsPRESS

Thrust Levers.....TO/GA

Rotate the airplane following the flight director guidance.

In case of flight director is inoperative, rotate the airplane according to the table below.

LANDING FLAPS POSITION	GO-AROUND PITCH ANGLE
2	7.5°

With positive rate of climb:

LDG GEAR LeverUP

Minimum AirspeedV_{AC}

At the acceleration altitude proceed as in a normal takeoff.

- (c) Replace the ONE ENGINE INOPERATIVE PROCEDURE APPROACH AND LANDING procedure in AFM Section 4-01, Page 17, by the following procedure:

FLAPS MUST NOT BE RETRACTED DURING GO-AROUND MANEUVER:

ONE ENGINE INOPERATIVE APPROACH AND LANDING

During descent:

- Landing Speeds.....SET
- Landing Field ElevationSET
- Approach AidsSET
- Altimeters.....SET/CHECK

Landing configuration:

- LDG GEAR LeverDN
- Flaps2
- AirspeedMINIMUM
V_{REF} + 10 KIAS

CAUTION: MULTIPLY THE FULL FLAPS UNFACTORED LANDING DISTANCE BY 1.25.

If a go around is required:

- Go-Around ButtonsPRESS
- Thrust Levers.....TO/GA

CAUTION: DO NOT PRESS THE TO/GA BUTTON AFTER SELECTING GO AROUND FLAP.

Rotate the airplane to 7.5° nose up.

With positive rate of climb:

- LDG GEAR LeverUP
- AirspeedAPPROACH
CLIMB SPEED

- (d) Revise AFM Section 5-02 to add the following statement:

WARNING: OPERA LANDING PERFORMANCE FOR NO ICE CONDITIONS (ANTI-ICE OFF) MUST NOT BE USED.

- (e) Do not use AFM performance tables (ANTI-ICE OFF) which are in Section 5-20, Pages 2 and 3. Replace them by the following table:

**APPROACH FLAPS 2 AND LANDING FLAPS 2
ANTI-ICE OFF**

WEIGHT (kg)	APPROACH	LANDING (CLIMB/REFERENCE)
	FLAPS 2	FLAPS 2
	V _{AC} - KIAS	V _{REF} - KIAS
3200	92	91
3300	93	91
3400	94	92
3500	95	93
3600	97	95
3700	98	96
3800	99	97
3900	100	98
4000	101	100
4100	102	101
4200	103	102
4300	104	104
4400	105	105
4500	107	106

- (f) Do not use AFM performance tables (ANTI-ICE OFF) which are in Section 5-25, Pages 2 and 3. Replace them by the following table:

**MAXIMUM LANDING WEIGHT – CLIMB LIMITED
APPROACH FLAPS 2 – LANDING FLAPS 2 – ANTI-ICE OFF**

TEMP (°C)	MAXIMUM LANDING WEIGHT (kg)					
	Altitude (ft)					
	-1000 ft	0 ft	1000 ft	2000 ft	3000 ft	4000 ft
-40	4430 (S)	4430 (S)	4430 (S)	4426 (A)	4275 (A)	4125 (A)
-35	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4279 (A)	4129 (A)
-30	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4283 (A)	4133 (A)
-25	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4287 (A)	4137 (A)
-20	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4290 (A)	4141 (A)
-15	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4294 (A)	4145 (A)
-10	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4297 (A)	4148 (A)
-5	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4301 (A)	4152 (A)
0	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4304 (A)	4156 (A)
5	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4305 (A)	4157 (A)
10	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4301 (A)	4154 (A)
15	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4297 (A)	4151 (A)
20	4430 (S)	4430 (S)	4430 (S)	4430 (S)	4284 (A)	4137 (A)
25	4430 (S)	4430 (S)	4430 (S)	4338 (A)	4169 (A)	3998 (A)
30	4430 (S)	4430 (S)	4311 (A)	4126 (A)	3954 (A)	3788 (A)
35	4430 (S)	4262 (A)	4080 (A)	3908 (A)	3744 (A)	3584 (A)
40	4191 (A)	4030 (A)	3866 (A)	3701 (A)	3544 (A)	3397 (A)
45	3977 (A)	3826 (A)	3665 (A)	3509 (A)	-	-
50	3773 (A)	3629 (A)	-	-	-	-

TEMP (°C)	MAXIMUM LANDING WEIGHT (kg)					
	Altitude (ft)					
	5000 ft	6000 ft	7000 ft	8000 ft	9000 ft	10000 ft
-40	3977 (A)	3847 (A)	3723 (A)	3603 (A)	3485 (A)	3410 (A)
-35	3981 (A)	3850 (A)	3727 (A)	3606 (A)	3488 (A)	3412 (A)
-30	3984 (A)	3854 (A)	3730 (A)	3610 (A)	3492 (A)	3415 (A)
-25	3988 (A)	3857 (A)	3734 (A)	3613 (A)	3495 (A)	3417 (A)
-20	3992 (A)	3861 (A)	3737 (A)	3616 (A)	3498 (A)	3419 (A)
-15	3995 (A)	3864 (A)	3740 (A)	3619 (A)	3501 (A)	3422 (A)
-10	3998 (A)	3867 (A)	3743 (A)	3623 (A)	3504 (A)	3424 (A)
-5	4002 (A)	3870 (A)	3747 (A)	3626 (A)	3508 (A)	3426 (A)
0	4005 (A)	3874 (A)	3750 (A)	3629 (A)	3511 (A)	3429 (A)
5	4007 (A)	3877 (A)	3752 (A)	3631 (A)	3513 (A)	3431 (A)
10	4006 (A)	3874 (A)	3750 (A)	3630 (A)	3512 (A)	3429 (A)
15	4005 (A)	3872 (A)	3747 (A)	3627 (A)	3509 (A)	3409 (A)
20	3987 (A)	3828 (A)	3678 (A)	3535 (A)	3378 (A)	3223 (A)
25	3821 (A)	3654 (A)	3496 (A)	3345 (A)	3198 (A)	3124 (A)
30	3619 (A)	3455 (A)	3302 (A)	3175 (A)	3124 (A)	3124 (A)
35	3416 (A)	3268 (A)	3154 (A)	-	-	-
40	3242 (A)	-	-	-	-	-

NOTE 1: The above limitation and procedures are considered an interim solution until a final action is identified, at which time the ANAC may consider the issuance of a further rulemaking.

NOTE 2: Operation in icing condition is not affected by the above limitation and procedures.

Record compliance with this EAD in the applicable maintenance log book.

CONTACT: For additional information, please contact the ANAC-GGCP, 12246-870 - São José dos Campos - SP, Brazil, telephone: 55 (12) 3797-2521, Fax: 55 (12) 3797-2330, E-mail: pac@anac.gov.br.

APPROVAL: Original in Portuguese language available in the files of the Aeronautical Products Certification Branch (GGCP) of the National Civil Aviation Agency (ANAC). Signed by:

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