



---

# TYPE-CERTIFICATE DATA SHEET

No. EASA.IM.A.526

**for**

EMB-550

**Type Certificate Holder:**

Embraer S.A.

Av. Brigadeiro Faria Lima, 2170.

12227-901, São José dos Campos - SP

Brazil

For Models: EMB-550  
EMB-545



Intentionally left blank



## TABLE OF CONTENTS

<b>SECTION 1: EMB-550</b> .....	<b>6</b>
<b>I. General</b> .....	<b>6</b>
1. Type/ Model/ Variant .....	6
2. Performance Class .....	6
3. Certifying Authority .....	6
4. Manufacturer .....	6
5. ANAC Certification Application Date .....	6
6. EASA Validation Application Date.....	6
7. ANAC Type Certification Date.....	6
8. EASA Type Validation Date .....	6
<b>II. Certification Basis</b> .....	<b>6</b>
1. Reference Date for determining the applicable requirements .....	6
2. ANAC Type Certification Data Sheet No. : .....	6
3. ANAC Certification Basis .....	6
4. EASA Airworthiness Requirements.....	6
5. Special Conditions.....	7
6. Exemptions .....	8
7. Deviations .....	8
8. Equivalent Safety Findings .....	8
9. Environmental Protection Standards .....	8
10. Operational Suitability Requirements: .....	9
10.1 OSD MMEL.....	9
10.2 OSD FCD.....	9
<b>III. Technical Characteristics and Operational Limitations</b> .....	<b>9</b>
1. Type Design Definition.....	9
2. Description.....	9
3. Equipment .....	9
4. Dimensions .....	9
5. Engines.....	9
6. Auxiliary Power Unit .....	9
7. Propellers.....	10
8. Fluids.....	10
9. Fluid Capacities .....	10
10. Airspeed Limits .....	10
11. Flight Envelope .....	10
12. Operating Limitations .....	10
13. Maximum Certified Masses: .....	10
14. Centre of Gravity Range.....	10
15. Datum .....	11
16. Mean Aerodynamic Chord (MAC).....	11
17. Levelling Means .....	11
18. Minimum Flight Crew .....	11
19. Minimum Cabin Crew .....	11
20. Maximum Seating Capacity .....	11



21. Baggage/ Cargo Compartment .....	11
22. Wheels and Tyres: .....	11
23. ETOPS.....	11
<b>IV. Operating and Service Instructions .....</b>	<b>11</b>
1. Airplane Flight Manual (AFM).....	11
2. Instructions for Continued Airworthiness - Airworthiness Limitations .....	11
3. Weight and Balance Manual (WBM) .....	11
<b>V. Operational Suitability Data (OSD).....</b>	<b>12</b>
<b>VI. Notes .....</b>	<b>12</b>
<b>SECTION 2: EMB-545 .....</b>	<b>13</b>
<b>I. General .....</b>	<b>13</b>
1. Type/ Model/ Variant .....	13
2. Performance Class: .....	13
3. Certifying Authority: .....	13
5. ANAC Certification Application Date .....	13
6. EASA Validation Application Date.....	13
7. ANAC Type Certification Date.....	13
8. EASA Type Validation Date .....	13
<b>II. Certification Basis .....</b>	<b>13</b>
1. Reference Date for determining the applicable requirements .....	13
2. ANAC Type Certification Data Sheet No. ....	13
3. ANAC Certification Basis .....	13
4. EASA Airworthiness Requirements.....	13
5. Special Conditions.....	13
6. Exemptions .....	14
7. Deviations .....	14
8. Equivalent Safety Findings.....	15
9. Environmental Protection Standards .....	15
10. Operational Suitability Requirements .....	15
<b>III. Technical Characteristics and Operational Limitations .....</b>	<b>15</b>
<b>1. Type Design Definition .....</b>	<b>15</b>
<b>2. Description.....</b>	<b>15</b>
<b>3. Equipment.....</b>	<b>16</b>
<b>4. Dimensions .....</b>	<b>16</b>
<b>5. Engines.....</b>	<b>16</b>
<b>6. Auxiliary Power Unit.....</b>	<b>16</b>
<b>7. Propellers.....</b>	<b>16</b>
<b>8. Fluids .....</b>	<b>16</b>
<b>9. Fluid Capacities.....</b>	<b>16</b>
<b>10. Airspeed Limits .....</b>	<b>17</b>
<b>11. Flight Envelope .....</b>	<b>17</b>
<b>12. Operating Limitations .....</b>	<b>17</b>
<b>13. Maximum Certified Masses.....</b>	<b>17</b>
<b>14. Centre of Gravity Range .....</b>	<b>17</b>



15. Datum .....	17
16. Mean Aerodynamic Chord (MAC) .....	17
17. Levelling Means .....	17
18. Minimum Flight Crew.....	17
19. Minimum Cabin Crew .....	17
20. Maximum Seating Capacity. ....	17
21. Baggage/ Cargo Compartment: .....	17
22. Wheels and Tyres .....	18
23. ETOPS.....	18
<b>IV. Operating and Service Instructions .....</b>	<b>18</b>
1. Airplane Flight Manual (AFM) .....	18
2. Instructions for Continued Airworthiness - Airworthiness Limitations .....	18
3. Weight and Balance Manual (WBM).....	18
<b>V. Operational Suitability Data (OSD).....</b>	<b>18</b>
<b>VI. Notes .....</b>	<b>18</b>
<b>SECTION: ADMINISTRATIVE.....</b>	<b>19</b>
<b>I. Acronyms and Abbreviations .....</b>	<b>19</b>
<b>II. Type Certificate Holder Record .....</b>	<b>19</b>
<b>III. Change Record .....</b>	<b>19</b>



## **SECTION 1: EMB-550**

### **I. General**

- 1. Type/ Model/ Variant:** EMB-550/EMB-550
- 2. Performance Class:** A
- 3. Certifying Authority:** **Agência Nacional de Aviação Civil – ANAC**  
Gerência Geral de Certificação de Produtos Aeronáuticos  
Rua Laurent Martins, 209  
Jardim Esplanada  
12242-431 - São José dos Campos - SP  
Brazil
- 4. Manufacturer:** **Embraer S.A.**  
Av. Brig. Faria Lima. 2170  
12227-901, São Jose dos Campos - SP  
Brazil
- 5. ANAC Certification Application Date:** April 13<sup>th</sup>, 2009
- 6. EASA Validation Application Date:** May 11<sup>th</sup>, 2009
- 7. ANAC Type Certification Date:** August 12<sup>th</sup>, 2014
- 8. EASA Type Validation Date:** December 16<sup>th</sup>, 2014

### **II. Certification Basis**

- 1. Reference Date for determining the applicable requirements:** December 17<sup>th</sup>, 2009
- 2. ANAC Type Certification Data Sheet No.:**  
EA-2014T04
- 3. ANAC Certification Basis:** RBAC 25 - Airworthiness Requirements. Transport Category Airplanes, corresponding to U.S. 14 CFR Part 25, including amendments 25-1 through 25-128
- 4. EASA Airworthiness Requirements:**  
CS 25 - Certification Specifications for Large Airplanes, Amendment 7  
CS 25.851(a)(6) at Amdt. 18 in regards to the equipment installation and qualification of Halon free hand-held Fire Extinguishers (ref. DCA 0550-026-00104-2018)

For aircraft including DCA 0550-000-00026-2016 “*EMB-550 Performance Enhancement*” the following EASA Airworthiness Requirements have been applied:

Certification Specification 25, Amendment 18, dated 22 June 2016, except the following paragraphs for which EASA accepted a reversion to an earlier amendment in application to Part 21.A.101(b):

- a) CS 25 paragraphs at amendment 7:
- 25.21
  - 25.807



Issue: 9

- 25.903
  - 25.1043
  - 25.1091
  - 25.1093
  - 25.1322
  - 25.1360
  - 25.1323
  - 25.1325
  - 25.1403
  - 25.1459
  - 25.1521
  - 25.1533
  - 25.1583
- b) CS 25 paragraphs at amendment 11:
- 25.253
- c) CS 25 paragraphs at amendment 15:
- 25.143

## 5. Special Conditions:

5.1 Special Conditions issued because the product has novel or unusual design features relative to the design practices on which the applicable airworthiness code is based (21A.16B(a)1) :

SC B-07	Static Longitudinal, Lateral & Directional Stability & Low Speed Awareness
SC B-08	Flight Envelope Protection
SC B-09	Motion and Effect of Cockpit Controls
SC B-10	Normal load factor limiting system
SC B-15	Flight Envelope Protection: Normal Load Factor (g) Limiting Function (this SC replaced EASA SC B-10 in the context of DCA 0550-000-00026-2016 and adopted ANAC FCAR EV-49)
SC B-11	Steep Approach and Landing Requirements
SC C-02	Design Manoeuvre Requirements
SC C-03	Dive Speed Definition with Speed Protection System
SC C-04	Towbarless Towing, Structures
SC C-15	Engine and APU failure loads
SC C-18	Limit Pilot Forces
SC C-23	Landing Pitchover Conditions
SC D-05	Pilot view – Hydrophobic coatings in lieu of windshield wipers
SC D-06	Towbarless Towing, Structures
SC D-07	Control Surface Position Awareness / Electronic Flight Control Systems
SC D-21	Inflatable Restraints
SC D-30	Stowage compartment Fire Protection
SC D-31	Electrical Equipment Bay Fire Detection and Smoke Penetration
SC F-45	Data Link Services
SC F-46	Data Link Recording
SC F-51	Enhanced Flight Vision System (ref. DCA 0550-031-00053-2014)
SC F-52	Aircraft Electronic System Security Protection from Unauthorized External Access (ref. DCA 0550-042-00001-2015)



5.2 Special Conditions issued because the intended use of the product is unconventional (21A.16B(a)2) :  
None identified

5.3 Special Conditions issued because experience from other products has shown that unsafe conditions may develop (21A.16B(a)3):

SC C-10	Sustained Engine Imbalance
SC D-16	High Altitude Operations
SC E-03	Freezing Fog
SC E-07	Fuel low level warning
SC F-04	High Intensity Radiated Fields (HIRF)
SC F-15	Falling and Blowing Snow

## 6. Exemptions:

N/A

## 7. Deviations:

Following deviations from airworthiness provisions were granted:

Dev D-11	Side Facing Seats/Divans	(CS 25.785(b))
Dev D-20	Main Aisle Width	(CS 25.815)

## 8. Equivalent Safety Findings:

Following Equivalent safety findings with airworthiness provisions were granted (21A.21(c)(2))

ESF D-18	Emergency exit step down Distance	(CS 25.807(a)(3))
ESF D-32	Flight Control System Failure Criteria	(CS 25.671(c)(2))
ESF D-33	Pressurised cabins	(CS 25.841(b)(1); 25.843 (b) (1))
ESF E-02	APU Fireproof Mounts	(CS 25.865)
ESF E-10	Digital Only Display of Turbine Engine High Pressure Rotor Speed (N2)	(CS 25.1305(c)(3); 25.1549)
ESF E-11	ATTCS lack of switch	(CS 25 Appendix I 25.6 (c) (2))
ESF E-12	2D nacelle area (Fire protection)	(CS 25.867)
ESF E-13	APU Filter Bypass	(CS 25J1019)
ESF F-30	Landing Light Switch	(CS 25.1383(b))
ESF F-49	Position and anti-collision lighting systems luminous intensity amendment	(CS 25.1389(b)(1),(b)(2),(b)(3), 25.1391; 25.1393; 25.1395; 25.1401(f))

## 9. Environmental Protection Standards:

Fuel venting and emissions:

CS 34 Initial Issue - Certification Specifications for Aircraft Engine Emissions and Fuel Venting

CS 34 Amdt. 2 - Certification Specifications for Aircraft Engine Emissions and Fuel Venting (applicable to DCA 0550-000-00026-2016)





Noise:

CS 36 Amdt. 2 - Certification Specifications for Aircraft Noise

CS 36 Amdt. 4 - Certification Specifications for Aircraft Noise (applicable to DCA 0550-000-00026-2016)

**10. Operational Suitability Requirements:**

10.1 OSD MMEL

CS-MMEL, Initial Issue dated 31 January 2014

10.2 OSD FCD

CS-Flight Crew Data, Initial Issue dated 31 January 2014

**III. Technical Characteristics and Operational Limitations**

**1. Type Design Definition:**

550TDS003 "TYPE DESIGN STANDARD DOCUMENT - EASA" rev. B or later approved revision

**2. Description:**

The EMB-550 presents a conventional configuration with low wing, fuselage mounted twin engines, "T" tailed stabilizers and retractable tricycle double wheeled nose and main landing gears. The primary structure is a metallic construction excepting the composite empennages and control surfaces.

**3. Equipment:** The equipment required by the applicable requirements shall be installed

**4. Dimensions:**

Length	20.74 m
Span	19.25 m
Span	21.50 m (for aircraft with DCA 0550-000-00026-2016 installed)
Height	6.44 m
Wing Area	44.85 m <sup>2</sup>

**5. Engines:** Two turbofans Honeywell AS-907-3-1E

Engine Limits                      Static Thrust (kN)

Take Off (5 minutes) 31.75

Maximum Continuous              30.49

(1) The ratings are based on static test stand operation under the following conditions;

- (a) No loading of aircraft accessory drives.
- (b) No aircraft compressor bleed air extraction.
- (c) Fan exhaust and turbine exhaust nozzles conforming to Honeywell International Inc. drawings N10780-1 and N10781-1.
- (d) Bellmouth inlet conforming to Honeywell International Inc. drawing 5837800-1.
- (e) Dry inlet air.
- (f) No exhaust nozzle back pressure.

(2) The normal 5 minutes take-off time may be extended to 10 minutes for engine out contingency.

(3) Sea level standard day (ISA) conditions.

**6. Auxiliary Power Unit:** One APU, Honeywell 36-150[EMB]



## 7. Propellers: N/A

## 8. Fluids

Fuel: Refer to approved Airplane Flight Manual

Oil: Refer to approved Airplane Flight Manual

Additives: Refer to the AMM for approved fuel additives

Hydraulic: Refer to the AMM

## 9. Fluid Capacities

Fuel: Total fuel capacity of 5 920 kg, two wing tanks 2 960 kg each, @ 9.34 m aft of datum. Reference fuel density is 0.803kg/L.

EMB-550 with DCA 0550-000-00026-2016

Fuel: Total fuel capacity of 7 320 kg, two wing tanks 2 960 kg each @ 9.34 m aft of datum, in a forward tank, 650 kg @7.08 m aft of datum, and a ventral tank, 750 kg @11.8 m aft of datum. Reference fuel density is 0.803kg/L.

Oil: Tank mounted on each engine: 7.19 L each

Hydraulic: Total fluid capacity of 49.7 kg @ 12.60m aft of datum.

**10. Airspeed Limits:** Refer to approved Airplane Flight Manual

**11. Flight Envelope:** Refer to approved Airplane Flight Manual

## 12. Operating Limitations

12.1 Approved Operations: Refer to approved Airplane Flight Manual

12.2 Other Limitations: Refer to approved Airplane Flight Manual

## 13. Maximum Certified Masses:

Design Weights	Airplanes Post-Mod. SB 550-042-0004* (kg)	Airplanes Pre-Mod. SB 550-042-0004 (kg)	EMB-550 with DCA 0550-000-00026-2016 (kg)
Maximum Ramp Weight	17480	17280	19500
Maximum Takeoff Weight	17400	17200	19440
Maximum Landing Weight	15660	15480	17000
Maximum Zero Fuel Weight	12020	12020	13000

\*or with an equivalent modification factory incorporated

**14. Centre of Gravity Range:** Refer to approved Airplane Flight Manual



**15. Datum:** Plane, perpendicular to the fuselage centreline, located 429.92 inches ahead of the wing jack points.

**16. Mean Aerodynamic Chord (MAC):** Refer to approved Airplane Flight Manual

**17. Levelling Means:**

Plumb bob means located between frames 30 and 31 and electronic means thru cockpit displays (refer to AMM Part II Chapter 8).

**18. Minimum Flight Crew:** Two Pilots

**19. Minimum Cabin Crew:** N/A

**20. Maximum Seating Capacity:**

The maximum seating capacity is limited to a number of 12 passengers (depending on the LOPA configuration).

**21. Baggage/ Cargo Compartment:**

Wardrobe	40 kg (3.89 m aft of datum)
Internal Stowage Compartment	150 kg (11.5 m aft of datum)
External Cargo Compartment	400 kg (13.8 m aft of datum)

**22. Wheels and Tyres:**

Gear	Quantity	Wheel Size	Tyre Size
NLG	2	9.76"	17.5x5.75-8 10PR 210MPH
MLG	4	16.12"	H26.5x8.0-14 14PR 210MPH

**23. ETOPS:** N/A

**IV. Operating and Service Instructions**

**1. Airplane Flight Manual (AFM)**

Airplanes must be operated according to the EASA approved AFM, part number AFM-3921-300, revision original (or later approved revision)

For EMB-550 with DCA 0550-000-00026-2016, the EASA approved AFM part number AFM-3921-900, revision original (or later approved revision) is applicable.

**2. Instructions for Continued Airworthiness - Airworthiness Limitations**

The Airworthiness Limitations Section is found in Chapter 4 "Airworthiness Limitation Section" of the Aircraft Maintenance Manual AMM-5613

**3. Weight and Balance Manual (WBM):** Refer to approved Airplane Flight Manual and LOPA



## **V. Operational Suitability Data (OSD)**

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate EASA.IM.A.526 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List (MMEL)

The MMEL is defined in EMBRAER EASA MMEL-5001 Revision 02 or later approved revisions.

2. Flight Crew Data (FCD)

The FCD is defined in EMBRAER Report No. 550MSO208 Revision A dated 7 December 2015 or later approved revisions.

## **VI. Notes**

**Note 1** - The EMB-550 is often referred to in Embraer marketing literature as the “Legacy 500.” This name is strictly for marketing purposes and is not part of the official model designation.

**Note 2** - EMB-550 with DCA 0550-000-00026-2016 is often referred to in Embraer marketing literature as the “Praetor 600”. This name is strictly for marketing purposes and is not part of the official model designation.



## **SECTION 2: EMB-545**

### **I. General**

- 1. Type/ Model/ Variant:** EMB-550/EMB-545
- 2. Performance Class:** A
- 3. Certifying Authority:** **Agência Nacional de Aviação Civil – ANAC**  
Gerência Geral de Certificação de Produtos Aeronáuticos  
Rua Laurent Martins, 209  
Jardim Esplanada  
12242-431 - São José dos Campos - SP  
Brazil
- 4. Manufacturer:** **Embraer S.A.**  
Av. Brig. Faria Lima. 2170  
12227-901, São Jose dos Campos - SP  
Brazil
- 5. ANAC Certification Application Date:** April 13<sup>th</sup>, 2009
- 6. EASA Validation Application Date:** December 22<sup>nd</sup>, 2010
- 7. ANAC Type Certification Date:** August 11<sup>th</sup>, 2015
- 8. EASA Type Validation Date:** September 9<sup>th</sup>, 2015

### **II. Certification Basis**

- 1. Reference Date for determining the applicable requirements:** December 22<sup>nd</sup>, 2010
- 2. ANAC Type Certification Data Sheet No.:** EA-2014T04
- 3. ANAC Certification Basis:**  
RBAC 25 - Airworthiness Requirements. Transport Category Airplanes, corresponding to U.S. 14 CFR Part 25, including amendments 25-1 through 25-129
- 4. EASA Airworthiness Requirements:**  
CS 25 - Certification Specifications for Large Airplanes, Amendment 9  
CS 25.851(a)(6) at Amdt. 18 in regards to the equipment installation and qualification of Halon free hand-held Fire Extinguishers (ref. DCA 0550-026-00104-2018)

#### **5. Special Conditions:**

- 5.1 Special Conditions issued because the product has novel or unusual design features relative to the design practices on which the applicable airworthiness code is based (21A.16B(a)1) :

SC B-07      Static Longitudinal, Lateral & Directional Stability & Low Speed Awareness  
SC B-08      Flight Envelope Protection



Issue: 9

SC B-09	Motion and Effect of Cockpit Controls
SC B-10	Normal load factor limiting system
SC C-02	Design Manoeuvre Requirements
SC C-03	Dive Speed Definition with Speed Protection System
SC C-04	Towbarless Towing, Structures
SC C-18	Limit Pilot Forces
SC C-23	Landing Pitchover Conditions
SC D-05	Pilot view – Hydrophobic coatings in lieu of windshield wipers
SC D-06	Towbarless Towing, Structures
SC D-07	Control Surface Position Awareness / Electronic Flight Control Systems
SC D-21	Inflatable Restraints
SC D-30	Stowage compartment Fire Protection
SC D-31	Electrical Equipment Bay Fire Detection and Smoke Penetration
SC D-34	Structural Armrest between Seats (ref. DCA 0550-025-00151-2015)
SC F-45	Data Link Services
SC F-46	Data Link Recording
SC F-51	Enhanced Flight Vision System (ref. DCA 0550-031-00053-2014)
SC F-52	Aircraft Electronic System Security Protection from Unauthorized External Access (ref. DCA 0550-042-00001-2015)

5.2 Special Conditions issued because the intended use of the product is unconventional (21A.16B(a)2) :

None identified

5.3 Special Conditions issued because experience from other products has shown that unsafe conditions may develop (21A.16B(a)3):

SC D-16	High Altitude Operations
SC E-03	Freezing Fog
SC E-07	Fuel low level warning
SC F-04	High Intensity Radiated Fields (HIRF)
SC F-15	Falling and Blowing Snow

## 6. Exemptions: N/A

## 7. Deviations:

Following deviations from airworthiness provisions were granted:

Dev D-11	Side Facing Seats/Divans	(CS 25.785(b))
Dev D-20	Main Aisle Width	(CS 25.815)



**8. Equivalent Safety Findings:**

Following Equivalent safety findings with airworthiness provisions were granted (21A.21(c)(2))

ESF D-18	Emergency exit step down Distance	(CS 25.807(a)(3))
ESF D-32	Flight Control System Failure Criteria	(CS 25.671(c)(2))
ESF D-33	Pressurised cabins	(CS 25.841(b)(1); 25.843 (b) (1))
ESF D-37	Lavatory Door – Compliance to CS 25.813(e)	
ESF E-02	APU Fireproof Mounts	(CS 25.865)
ESF E-10	Digital Only Display of Turbine Engine High Pressure Rotor Speed (N2)	(CS 25.1305(c)(3); 25.1549)
ESF E-11	ATTCS lack of switch	(CS 25 Appendix I 25.6 (c) (2))
ESF E-12	2D nacelle area (Fire protection)	(CS 25.867)
ESF E-13	APU Filter Bypass	(CS 25J1019)
ESF F-30	Landing Light Switch	(CS 25.1383(b))
ESF F-49	Position and anti-collision lighting systems luminous intensity amendment	(CS 25.1389(b)(1),(b)(2),(b)(3), 25.1391; 25.1393; 25.1395; 25.1401(f))

**9. Environmental Protection Standards:**

Fuel venting and emissions:

CS 34 Initial Issue - Certification Specifications for Aircraft Engine Emissions and Fuel Venting

Noise:

CS 36 Amdt. 2 - Certification Specifications for Aircraft Noise

CS 36 Amdt. 4 - Certification Specifications for Aircraft Noise (applicable to DCA 0550-000-00100-2018)

**10. Operational Suitability Requirements:**

10.1 OSD MMEL

CS-MMEL, Initial Issue dated 31 January 2014

10.2 OSD FCD

CS-Flight Crew Data, Initial Issue dated 31 January 2014

**III. Technical Characteristics and Operational Limitations****1. Type Design Definition:**

550TDSD006 "TYPE DESIGN STANDARD DOCUMENT - EASA" rev. A or later approved revision

**2. Description:**

The EMB-545 is a derivative model of the EMB-550 aircraft family type. It is a shortened version (approximately 1 meter shorter fuselage) of EMB-550 baseline with max. passenger capacity of 9.



**3. Equipment:** The equipment required by the applicable requirements shall be installed

<b>4. Dimensions:</b>	Length	19.68 m
	Span	19.25 m
	Span	21.50 m (for aircraft with DCA 0550-000-00100-2018 installed)
	Height	6.43 m
	Wing Area	44.85 m <sup>2</sup>

**5. Engines:** Two turbofans Honeywell AS-907-3-1E

Engine Limits                      Static Thrust (kN)

Take Off (5 minutes) 29.53

Maximum Continuous              28.36

- (1) The ratings are based on static test stand operation under the following conditions;
  - (a) No loading of aircraft accessory drives.
  - (b) No aircraft compressor bleed air extraction.
  - (c) Fan exhaust and turbine exhaust nozzles conforming to Honeywell International Inc. drawings N10780-1 and N10781-1.
  - (d) Bellmouth inlet conforming to Honeywell International Inc. drawing 5837800-1.
  - (e) Dry inlet air.
  - (f) No exhaust nozzle back pressure.
- (2) The normal 5 minutes take-off time may be extended to 10 minutes for engine out contingency.
- (3) Sea level standard day (ISA) conditions.

**6. Auxiliary Power Unit:** One APU, Honeywell 36-150[EMB]

**7. Propellers:** N/A

**8. Fluids**

Fuel: Refer to approved Airplane Flight Manual

Oil: Refer to approved Airplane Flight Manual

Additives: Refer to the AMM for approved fuel additives

Hydraulic: Refer to the AMM.

**9. Fluid Capacities**

Fuel:

Total fuel capacity of 5500 kg, two wing tanks 2750 kg each, @ 8.62 m aft of datum for aircraft post-mod SB 550-28-0002 or equivalent factory-incorporated modification.

Total fuel capacity of 4920 kg, two wing tanks 2460 kg each, @ 8.55 m aft of datum for aircraft pre-mod SB 550-28-0002.

Reference fuel density is 0.803kg/L.

EMB-545 with DCA 0550-000-00100-2018

Fuel: Total fuel capacity of 5 920 kg, two wing tanks 2 960 kg each @ 8.69 m aft of datum. Reference fuel density is 0.803kg/L.





Oil: Tank mounted on each engine: 7.19 L each

Hydraulic: Total fluid capacity of 47.7 kg @ 11.90m aft of datum.

**10. Airspeed Limits:** Refer to approved Airplane Flight Manual

**11. Flight Envelope:** Refer to approved Airplane Flight Manual

## 12. Operating Limitations

12.1 Approved Operations: Refer to approved Airplane Flight Manual

12.2 Other Limitations: Refer to approved Airplane Flight Manual

## 13. Maximum Certified Masses:

Design Weights	EMB-545 (kg)	EMB-545 with DCA 0550-000- 00100-2018 (kg)
Maximum Ramp Weight	16280	17100
Maximum Takeoff Weight	16220	17040
Maximum Landing Weight	14750	15500
Maximum Zero Fuel Weight	11750	11775

**14. Centre of Gravity Range:** Refer to approved Airplane Flight Manual

**15. Datum:** Plane, perpendicular to the fuselage centreline, located 404.4 inches ahead of the wing jack points.

**16. Mean Aerodynamic Chord (MAC):** Refer to approved Airplane Flight Manual

**17. Levelling Means:** Plumb bob means located between frames 29 and 30 and electronic means thru cockpit displays (refer to AMM Part II Chapter 8)

**18. Minimum Flight Crew:** Two Pilots

**19. Minimum Cabin Crew:** N/A

**20. Maximum Seating Capacity:** The maximum seating capacity is limited to a number of 9 passengers (depending on the LOPA configuration).

## 21. Baggage/ Cargo Compartment:

Wardrobe 40 kg (3.89 m aft of datum)

Internal Stowage Compartment 150 kg (10.4 m aft of datum)

External Cargo Compartment 400 kg (12.7 m aft of datum)



## 22. Wheels and Tyres:

Gear	Quantity	Wheel Size	Tyre Size
NLG	2	9.76"	17.5x5.75-8 10PR 210MPH
MLG	4	16.12"	H26.5x8.0-14 14PR 210MPH

## 23. ETOPS: N/A

## IV. Operating and Service Instructions

### 1. Airplane Flight Manual (AFM)

Airplanes must be operated according to the EASA approved AFM, part number AFM-3921-600, revision original (or later approved revision)

For EMB-545 with DCA 0550-000-00100-2018, the EASA approved AFM part number AFM-3921-950, revision original (or later approved revision) is applicable.

### 2. Instructions for Continued Airworthiness - Airworthiness Limitations

The Airworthiness Limitations Section is found in Chapter 4 "Airworthiness Limitation Section" of the Aircraft Maintenance Manual AMM-5613

### 3. Weight and Balance Manual (WBM): Refer to approved Airplane Flight Manual and LOPA

## V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate EASA.IM.A.526 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

#### 1. Master Minimum Equipment List (MMEL)

The MMEL is defined in EMBRAER EASA MMEL-5001 Revision 02 or later approved revisions.

#### 2. Flight Crew Data (FCD)

The FCD is defined in EMBRAER Report No. 550MSO208 Revision A dated 7 December 2015 or later approved revisions.

## VI. Notes

**Note 1** - The EMB-545 is often referred to in Embraer marketing literature as the "Legacy 450." This name is strictly for marketing purposes and is not part of the official model designation.

**Note 2** - EMB-545 with DCA 0550-000-00100-2018 is often referred to in Embraer marketing literature as the "Praetor 500". This name is strictly for marketing purposes and is not part of the official model designation.



**SECTION: ADMINISTRATIVE****I. Acronyms and Abbreviations**

AFM	Airplane Flight Manual
AMM	Airplane Maintenance Manual
ANAC	Agência Nacional de Aviação Civil
APU	Auxiliary Power Unit
ATTCS	Automatic Take-off Thrust Control System
CFR	Code of Federal Regulations
CS	Certification Specifications
DCA	Design Change Approval
Dev	Deviation
EASA	European Aviation Safety Agency
ESF	Equivalent Safety Finding
ETOPS	Extended range Twin-engine Operations Performance Standards
RBAC	Regulamento Brasileiro da Aviação Civil
LOPA	Lay-Out of Passengers Accommodations
MAC	Mean Aerodynamic Chord
MLG	Main Landing Gear
MPH	Miles Per Hour
N/A	Not Applicable
NLG	Nose Landing Gear
WBM	Weight and Balance Manual

**II. Type Certificate Holder Record**

[insert list or table]

**III. Change Record**

Issue	Date	Changes	TC issue
Issue 01	16 Dec. 2014	Initial Issue	Initial Issue, 16 Dec. 2014
Issue 02	22 July 2015	Introduction of OSD Requirements and approved data for MMEL and FCD.	
Issue 03	9 September 2015	Minor corrections in Section 1 Inclusion of EMB-545 Model in new Section 2	
Issue 04	16 December 2015	Section 1, Chapter II.5.1 - Inclusion of reference to SC B-11 Section 1, Chapter III.13 - Updated to include new approved of design weights Section 1, Chapter V - MMEL and FCD references updated Section 2, Chapter III.2 - MTOW references removed from Description Section 2, Chapter V - MMEL and FCD references included	



Issue 05	26 July 2016	<p>Section 2, Chapter III.9</p> <ul style="list-style-type: none"> <li>- Total fuel capacity post-mod SB 550-28-0002 added</li> </ul> <p>Section 2, Chapter III.13</p> <ul style="list-style-type: none"> <li>- Updated to include new approved design weights</li> </ul>	
Issue 06	1 November 2016	<p>Section 1, Chapter II.5.1</p> <ul style="list-style-type: none"> <li>- Inclusion of reference to SC F-51</li> <li>- Inclusion of reference to SC F-52</li> </ul> <p>Section 1, Chapter VI</p> <ul style="list-style-type: none"> <li>- Deletion of Note 1 regarding use of toilet seat (renumbering of Note 2)</li> </ul> <p>Section 2, Chapter II.5.1</p> <ul style="list-style-type: none"> <li>- Inclusion of reference to SC D-34</li> <li>- Inclusion of reference to SC F-51</li> <li>- Inclusion of reference to SC F-52</li> </ul> <p>Section 2, Chapter VI</p> <ul style="list-style-type: none"> <li>- Deletion of Note 1 regarding use of toilet seat (renumbering of Note 2)</li> </ul>	
Issue 07	19 December 2018	<p>Section 1, Chapter II.4</p> <ul style="list-style-type: none"> <li>- Additional reference to CS 25.851(a)(6) at Amdt. 18 introduced</li> </ul> <p>Section 2, Chapter II.4</p> <ul style="list-style-type: none"> <li>- Additional reference to CS 25.851(a)(6) at Amdt. 18 introduced</li> </ul>	
Issue 08	20 May 2019	<p>Section 1, Chapter II. 4.</p> <ul style="list-style-type: none"> <li>- Certification Basis for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter II. 5.</p> <ul style="list-style-type: none"> <li>- Reference to SC B-15 for DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter II. 9.</p> <ul style="list-style-type: none"> <li>- Environmental Protection Standards for EMB-550 corrected</li> <li>- Environmental Protection Standards for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter III.4.</p> <ul style="list-style-type: none"> <li>- Span for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter III.9.</p> <ul style="list-style-type: none"> <li>- Fuel information for EMB-550 corrected</li> <li>- Fuel information for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter III.13.</p> <ul style="list-style-type: none"> <li>- New approved design weights for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter IV.1.</p>	



		<ul style="list-style-type: none"> <li>- AFM information for EMB-550 with DCA 0550-000-00026-2016 added</li> </ul> <p>Section 1, Chapter VI.1.</p> <ul style="list-style-type: none"> <li>- Note for commercial name of the EMB-550 with 0550-000-00026-2016 added</li> </ul> <p>Section 2, Chapter I. 6.</p> <ul style="list-style-type: none"> <li>- EASA validation application date for EMB-545 corrected</li> </ul> <p>Section 2, Chapter II. 8.</p> <ul style="list-style-type: none"> <li>- Reference to ESF D-37 added</li> </ul> <p>Section 2, Chapter II. 9.</p> <ul style="list-style-type: none"> <li>- Environmental Protection Standards for EMB-545 corrected</li> </ul>	
Issue 09	30 September 2019	<p>Section 2, Chapter II. 9.</p> <ul style="list-style-type: none"> <li>- Environmental Protection Standards for EMB-545 with DCA 0550-000-00100-2018 added</li> </ul> <p>Section 2, Chapter III.4.</p> <ul style="list-style-type: none"> <li>- Span for EMB-545 with DCA 0550-000-00100-2018 added</li> </ul> <p>Section 2, Chapter III.9.</p> <ul style="list-style-type: none"> <li>- Fuel information for EMB-545 corrected</li> <li>- Fuel information for EMB-545 with DCA 0550-000-00100-2018 added</li> </ul> <p>Section 2, Chapter III.13.</p> <ul style="list-style-type: none"> <li>- New approved design weights for EMB-545 with DCA 0550-000-00100-2018 added</li> </ul> <p>Section 2, Chapter IV.1.</p> <ul style="list-style-type: none"> <li>- AFM information for EMB-545 with DCA 0550-000-00100-2018 added</li> </ul> <p>Section 2, Chapter VI.</p> <ul style="list-style-type: none"> <li>- Note for commercial name of the EMB-545 with DCA 0550-000-00100-2018 added</li> </ul>	

[insert rows as necessary]

-END-

