
Type Acceptance Report

TAR 13/21B/14 Revision 1

EMBRAER S.A.

EMB-500

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1. INTRODUCTION	1
2. AIRCRAFT CERTIFICATION DETAILS	2
3. APPLICATION DETAILS AND BACKGROUND INFORMATION	3
4. NZCAR §21.43 DATA REQUIREMENTS	4
5. NEW ZEALAND OPERATIONAL RULE COMPLIANCE	9
ATTACHMENTS	11
APPENDIX 1	11

Executive Summary

New Zealand Type Acceptance has been granted to the Embraer Model EMB-500 Series based on validation of ANAC Type Certificate number EA-2008T09. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Section 2, which are now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants or serial numbers approved under the foreign type certificate can become type accepted after supply of the applicable documentation, in accordance with the provisions of NZCAR §21.43(c).

NOTE: The information in this report was correct as at the date of issue. The report is generally only updated when an application is received to revise the Type Acceptance Certificate. For details on the current type certificate holder and any specific technical data, refer to the latest revision of the State-of-Design Type Certificate Data Sheet referenced herein.

1. Introduction

This report details the basis on which Type Acceptance Certificate No. 13/21B/14 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

The report notes the status of all models included under the State-of-Design type certificate which have been granted type acceptance in New Zealand, which are listed in Section 2. The history of the EMB-500 model type acceptance in New Zealand under ANAC type certificate EA-2008T09 is listed in Appendix 1.

2. Aircraft Certification Details

(a) State-of-Design Type and Production Certificates:

Manufacturer: EMBRAER S.A.

Type Certificate: EA-2008T09
Issued by: Agencia Nacional de Aviacao Civil

Production Approval: Embraer S.A. [ANAC COP No. E-7203-01] and
Embraer Executive Aircraft Inc. [FAA PC 346CE]

(b) Models Covered by the Part 21B Type Acceptance Certificate:

Model(s): EMB-500

MCTOW 4750 kg [10472 lb]
4800 kg [10582 lb] – with SB 500-00-0018 embodied
4855 kg [10703 lb] – for “Phenom 100EV” configuration

Max. No. of Seats: 8

Noise Standard: RBHA 36, equivalent to ICAO Annex 16 Volume 1 Chapter 4.

Engine: Pratt & Whitney Canada PW617F-E or PW617F1-E
Type Certificate: E-37
Issued by: Transport Canada

3. Application Details and Background Information

The application for New Zealand type acceptance was from the manufacturer, Embraer S.A., dated 18 January 2013. The EMB-500 is a twin-turbofan pressurised Very Light Jet (VLJ) with an unswept low-wing T-tail configuration. V_{MO}/M_{MO} for the aircraft is 275 kt and 0.70, with a maximum operating altitude of 41,000 feet. As part of the type acceptance a process a CAA team from the Aircraft Certification Unit visited Embraer in San Jose dos Campos for a validation/familiarisation visit. (See Meeting Minutes No. GCF-0644/2013.)

Type Acceptance Certificate Number 13/21B/14 was granted on 21 March 2014 to the Model EMB-500 based on validation of ANAC Type Certificate number EA-2008T09. Specific applicability is limited to the coverage provided by the operating documentation supplied. (The PW617F-E engine has been validated under Type Acceptance Certificate number 13/21B/17.) There are no special requirements for import into New Zealand.

The EMB-500, marketed as the Phenom 100, was a clean-sheet design of VLJ by Embraer. Standard club layout is four passengers, although an additional two can be accommodated on the belted toilet and optional single divan which replaces the wardrobe. Serial numbers up to 217 are considered an enhanced version, while S/N 218 and above have the higher engine performance available by incorporation of Service Bulletin SB 500-73-001.

The application for a type certificate was made in October 2005, and extended in 2008. First flight of the aircraft was in 2007 and the Brazilian type certificate was issued in December 2008. The aircraft comes in three basic versions, ANAC, FAA and EASA, depending on the regulatory jurisdiction chosen. Aircraft can be converted from one version to another individually by Service Bulletin. (For example see SB 500-00-0004 General – Reconfiguration from FAA to EASA Certification Requirements.)

The aircraft is now also assembled at an Embraer subsidiary facility in Melbourne, Florida, under an FAA Production Certificate. However these aircraft are still covered by the Brazilian type certificate.

Revision 1 of this report was issued to include a variant with the PW617F1-E increased engine thrust model, increased weight and modified CG range, and Garmin G3000 avionics system marketed as the “Phenom 100EV”. The opportunity was also taken to accept major design changes for introduction of a secondary hydraulic power source to increase brake system availability and an optional speed brake function for the optional ground spoiler. The application was from Embraer S.A., dated 22 May 2020.

4. NZCAR §21.43 Data Requirements

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents, or were already held by the CAA:

(1) State-of-Design Type certificate:

ANAC Type Certificate Number EA-2008T09

ANAC Type Certificate Data Sheet no. EA-2008T09-06 dated 10 May 2017
– Model EMB-500 approved 09 December 2008

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the EMB-500 is RBHA 23, which is equivalent to FAR Part 23 effective 1 February 1965, including Amendments through 23-55 effective 01 March 2002, plus five Special Conditions, four Equivalent Level of Safety Findings, and one Exemption. Post initial certification, an Equivalent Level of Safety was superseded by a revised issue. These have been reviewed and accepted by the CAA. Compliance with ice protection and provisions for ditching equipment have also been demonstrated. This is an acceptable certification basis in accordance with NZCAR Part 21B Paragraph §21.41, because FAR Part 23 is the basic standard for Normal Category Airplanes called up under Part 21 Appendix C. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

Resolução N° 39 – Special Condition for Subpart G (Operating Limitations and Information) – FCAR EV-04: Similar to the reasoning behind EV-01 this SC applied a range of additional requirements regarding aircraft operating limitations and performance information.

Resolução N° 66 – Special Condition for Subpart B (Flight) – FCAR EV-01: Part 23 was written around lower performance reciprocating powered aircraft that typically do not reach the altitudes and speeds of VLJ. ANAC used the following considerations as motivation for this SC: Small turbofans with faster spool-up times than older turbojets with high performance; Disking drag from turboprops versus very little drag from that jet; and new avionics. The SC applied a range of alternative requirements for FAR 23 performance and handling, which are similar to FAR Part 25.

Resolução N° 43 – High Intensity Radiated Fields (HIRF) Protection – FCAR SE-02: To prevent the occurrence of a catastrophic failure condition to the airplane, electrical and electronic systems which perform critical functions must be designed and installed to ensure that the operation and operational capabilities of these critical systems are not adversely affected when the airplane is exposed to the high-energy radio fields environments specified in the SC.

Resolução N° 44 – Hot Weather Operation – FCAR PR-09: The engine manufacturer indicated the PW617F-E engine design is such that it may heat the motive flow in a way to increase fuel tank temperature above that envisioned by the current rule. This SC was imposed for the higher fuel system temperatures. Embraer determined by analysis the normal

operational conditions which would result in the highest fuel tank temperature and tested the aircraft at this determined condition.

Resolução N° 45 – Fire Extinguishing for Aircraft Fuselage Mounted Engines – FCAR PR-03: Fire protection for fuselage-mounted engine installations was only specified for the Commuter Category, but were applied to the EMB500. Its Engine Fire Protection System will be designed and installed to provide prompt fire and overheat detection and fire extinguishing to protect the designated fire zone, as well as a shutoff means to stop flammable fluids flow into this zone.

Resolução N° 46 – Special Condition for FADEC – FCAR PR-07: Even though the engine electronic control system (ECS) will be certificated as part of the engine, the installation must comply with the requirements of §23.1309(a) through (e) at Amendment 23-55. The intent is not to re-evaluate the basic hardware reliability of the control, but rather determine critical environmental effects and possible effects on or by other airplane systems when installing the ECS on the airplane.

Resolução N° 47 – Brakes: Designation of Applicable Regulations – FCAR SM-02: This SC imposed the Commuter Category requirements of §23.735(e). The EMB-500 main wheel brakes are sized to absorb the energies expected during a rejected takeoff at the design MTOW.

Resolução N° 56 – Airspeed Calibration – FCAR EV-02: The design features of the EMB-500 include new avionics and performance characteristics that were not envisioned by the existing regulations. This SC imposed the Commuter Category requirements of §23.1323(e) and (f).

Resolução N° 177 – Special Condition for Single Occupant Transversely Oriented Seat – FCAR EI-05 and EI-07: This specified Proposed Injury Criteria for single-place side-facing seats, and included: Existing §23.562 Criteria; Body-to-Wall/Furnishing Contact; Thoracic Trauma; Pelvic Acceleration Limit; Shoulder Strap Loads; Compression Loads; and some other requirements specific to the rear belted toilet installation (per FAA Memorandum ANM-03-115-30).

(iii) Equivalent Level of Safety Findings:

Decisão N° 302 – CFR §23.1555(d)(1) and §23.1337(b)(1) Control Markings – Usable Fuel Capacity – FCAR PR-05: The EMB-500 fuel quantity indication system (FQIS) not only measures the actual amount onboard by means of level sensors but also corrects fuel quantity information by inferring fuel density as a function of current temperature. It will also be calibrated to read “zero” when the quantity of fuel left in the tank is equal to the unusable fuel.

Decisão N° 303 – CFR §23.1305, §23.1309, §23.1321 and §23.1549 Digital Only Display of Turbine Engine High/Intermediate Pressure Rotor Speed (N2) – FCAR PR-02: This was accepted on the basis that N2 is not a basic thrust setting parameter and system architecture monitors and limits N2 without any pilot action. Exceedences are shown by colour change. Additional high rotor overspeed protection is provided by engine certification requirements. [Superceded by Portaria No 3.676– CFR §23.1305, §23.1549 Digital Only Display of Turbine Engine High Pressure Rotor Speed (N2), Oil Pressure, Oil Temperature and Fuel Flow – FCAR PR-02 dated 10/08/2016: This re-issue adds the oil pressure, oil temperature and fuel flow indication. In addition to exceedences shown by colour change, steady state oil pressure exceedance results in a dedicated crew alerting system message.]

Decisão N° 306 – CFR §23.601 and §23.807(e)(2) Ditching Emergency Exit for Passenger – FCAR EI-03: Because flotation analysis showed the main cabin entry door sill

will be underwater the use of a water barrier was accepted subject to demonstration of the stowage, effectiveness and ease of use in conjunction with AFM procedures and placarded instructions.

Decisão N° 381 – CFR §23.1553, §23.1337(b)(1) and §23.959 Digital Fuel Quantity Indication – FCAR PR-11: The EMB-500 does not literally display a red radial line, which is not feasible with a digital display, but has compensating features such as FQIS colour changes (background and figures) and redundant displays on the synoptic page with the same colour codes.

(iv) Exemptions:

Decisão N° 383 – CFR §23.181(b) Exemption for Dynamic Stability – FCAR EV-05: VLJ aircraft capable of high speed and high altitude cruising flight typically exhibit deteriorating aerodynamic lateral-directional damping characteristics. An FAA Aviation Rulemaking Committee (ARC) working group reviewed Part 23 for small jets and high performance airplanes and recommended relaxed “Dutch-Roll” damping criteria. (Using Part 25 criteria was not considered adequate for pilot workload considerations because Part 23 aircraft are often operating with less experienced crew flying single pilot IMC.) Embraer demonstrated the combined lateral-directional oscillations are damped to 1/10 of the initial amplitude in 13 cycles, as specified in the ARC criterion, for all operating conditions from 18,000ft up to the maximum certified altitude with the yaw damper on, or off with a restricted flight envelope, with no adverse effect on safety or workload.

(v) Airworthiness Limitations:

See Maintenance Manual Chapter Four – Airworthiness Limitations

(3) Aircraft Noise and Engine Emission Standards:

(i) Environmental Standard:

The EMB-500 has been certificated under the emission requirements of RBHA 34, equivalent to FAR 34 effective 10 September 1990 as amended on the application date, and the noise requirements of RBHA 36, equivalent to ICAO Annex 16 Vol. 1 Chapter 4 (4th Edition) effective July 2005 as amended on the application date.

(ii) Compliance Listing:

Embraer Report No. 500NOR001 – Model 500 – External Noise Certification – Test Report – Volume 1:

Summary of Results (PW617F-E):

Condition	Gross Weight	Flap	Test EPNL	90% Confidence Interval	Stage 3 /Chapter 3 Noise Limits	Exceedance
Flyover	4,750 kg.	10°	70.4 dB	0.758	89.0 dB	-18.63 dB
Lateral	4,750 kg.	10°	81.4 dB	0.806	94.0 dB	-12.61 dB
Approach	4,430 kg.	36°	86.1 dB	0.281	98.0 dB	-11.86 dB
Stage 4 /Chapter 4 Rule	Worst Exceedance				0.00	-11.86 dB
	Sum of Worst 2 Exceedances				-2.00	-24.47 dB
	Sum of All 3 Exceedances				-10.00	-43.10 dB

Summary of Results (PW617F-E with SB 500-00-0018 embodied):

Condition	Gross Weight	Flap	Test EPNL	90% Confidence Interval	Stage 3 /Chapter 3 Noise Limits	Exceedance
Flyover	4,800 kg.	10°	70.8 dB	0.774	89.0 dB	-18.25 dB
Lateral	4,800 kg.	10°	81.4 dB	0.805	94.0 dB	-12.61 dB
Approach	4,480 kg.	36°	86.1 dB	0.285	98.0 dB	-11.91 dB
Stage 4 /Chapter 4 Rule	Worst Exceedance				0.00	-11.91 dB
	Sum of Worst 2 Exceedances				-2.00	-24.52 dB
	Sum of All 3 Exceedances				-10.00	-42.77 dB

Summary of Results (PW617F1-E):

Condition	Gross Weight	Flap	Test EPNL	90% Confidence Interval	Stage 3 /Chapter 3 Noise Limits	Exceedance
Flyover	4,855 kg.	10°	70.8 dB	0.753	89.0 dB	-18.21 dB
Lateral	4,855 kg.	10°	81.6 dB	0.845	94.0 dB	-12.38 dB
Approach	4,535 kg.	36°	86.1 dB	0.290	98.0 dB	-11.93 dB
Stage 4 /Chapter 4 Rule	Worst Exceedance				0.00	-11.93 dB
	Sum of Worst 2 Exceedances				-2.00	-24.31 dB
	Sum of All 3 Exceedances				-10.00	-42.52 dB

(4) Certification Compliance Listing:

Embraer Report No.: 500CCC001 – EMB-500 Certification Plan – Rev.B

Embraer Design Change Application Approval DCA No.: 0500-000-00032-2015/ANAC Rev.C – EMB-500 Enhanced Performance.

Embraer Design Change Application Approval DCA No.: 0500-031-00195-2015/ANAC Rev.C – Installation of G3000 Avionics System for EMB-500.

Embraer Design Change Application Approval DCA No.: 0500-027-00066-2011/ANAC Rev.D – EMB-500 – Speed Brake Function Implementation.

Embraer Design Change Application Approval DCA No.: 0500-032-00052-2011/ANAC Rev.J – Secondary hydraulic power source to increase normal brake system availability.

(5) Flight Manual: Phenom 100 ANAC-Approved Airplane Flight Manual Document AFM-2655 – CAA Accepted as AIR 3244

(6) Operating Data for Aircraft:

- (i) *Maintenance Manual:*
 - Aircraft Maintenance Manual – AMM-2432
 - Structural Repair Manual – SRM-2677
 - Standard Wiring Practices Manual – SWPM-2681
 - (ii) *Current service Information:*
 - Service Bulletins and Service Letters
 - (iii) *Illustrated Parts Catalogue:*
 - Aircraft Illustrated Parts Catalog – AIPC-2673
- (7) Agreement from manufacturer to supply updates of data in (5), and (6):
Access is provided to the www.FlyEmbraer.com website
- (8) Other information:
- Embraer Report No.: 500ELA001 – EMB-500 – Electrical Power Generation and Distribution System – Electrical Load Analysis – Rev.E
 - Phenom 100 Pilot’s Operating Handbook Volume 1 – POH-2761-14
(Applicable to airplanes with Standard Takeoff Thrust [OPERA type B])
 - Phenom 100 Pilot’s Operating Handbook Volume 1 – POH-2761-04
(Applicable to airplanes with Enhanced Takeoff Thrust [OPERA type A])
 - Phenom 100 & 300 – Standard Operating Procedures Manual – SOP-4590
 - Phenom 100 Minimum Equipment List (MEL) Guide – MEL-3588
 - Phenom 100 ANAC Master Minimum Equipment List – MMEL-2909
 - Phenom 100 Brazilian Quick Reference Handbook – QRH-2658
 - Garmin Embraer Prodigy® Flight Deck 100 – Cockpit Reference Guide
 - Garmin Embraer Prodigy® Flight Deck 100 – Pilot’s Guide
 - Flight Operational Bulletins and Flight Operations Letters

5. New Zealand Operational Rule Compliance

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 has been assessed as they are a prerequisite for the grant of an airworthiness certificate.

Civil Aviation Rules Part 26

Subpart B – Additional Airworthiness Requirements

Appendix B – All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	<i>To be determined on an individual aircraft basis</i>
B.2	Crew Protection Requirements – CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

Compliance with the following additional NZ operating requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

Civil Aviation Rules Part 91

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Seating and Restraints – Safety belt/Shoulder Harness	FAR §23.785/ FAR §23.2
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than 10 passenger seats
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	FAR §23.1303(b)(1) * FAR §23.1303(c)(2) * FAR §23.1303(b)(2) * FAR §23.1303(a)(3) * FAR §23.1305(a)(2) * FAR §23.1305(c)(3) * FAR §23.1305(a)(4) *
	(8) Coolant Temp (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter	Not Applicable – Turbojet FAR §23.1305(a)(6) * Not Applicable – Turbojet Not Applicable – Turbojet FAR §23.699 * FAR §23.729(e) * FAR §23.1351 (b)(6) *
91.511	Night VFR Instruments and Equipment	* Fitted as Standard
91.513	VFR Communication Equipment	* Fitted as Standard
91.517	IFR Instruments and Equipment	* Fitted as Standard
91.519	IFR Communication and Navigation Equipment	* Fitted as Standard
	* Garmin G1000 Integrated Instrument and Avionics System has dual GDC74B Air Data Computers; dual GRS77 Attitude Heading Reference Systems; Dual GMU44 magnetometers; dual GIA63W with VHF Nav/Comm and GPS; dual GMA1347D audio control panels; and GWX68 weather radar; Fitted as Standard. (single or dual KN63 DME is optional) * Later models incorporate the Garmin G3000 Integrated Instrument and Avionics system which replaces the G1000 but with GMA 36 audio panel, GTC 570 touch screen controllers and display reversion switch in place of the GMA1347D, GDU 1240A and GCU 475 controllers. Note: The Model EMB-500 is approved for VFR and IFR, Icing Conditions and Extended Over Water operations	
	RVSMB – Model EMB-500 is certificated and equipped as standard for RVSMB Operations (See AFM Supplement 1)	
	Operational Approvals – The Model EMB-500 is approved as follows: (See AFM Limitations Section) Barometric VNAV to enroute and terminal descents, as per FAA AC 20-129. Oceanic/Remote/MNPS/RNP-10 per FAA AC 20-138A and FAA Order 8400-12A. Enroute and terminal including RNP5/BRNAV and PRNAV/RNP-1 per JAA TGL-10 and ACJ 20X4.	
91.523	Emergency Equipment: (a) More Than 9 pax – First Aid Kits per Table 7 – Fire Extinguishers per Table 8 (b) More than 20 pax – Axe readily accessible to crew (c) More than 61 pax – Portable Megaphones per Table 9	Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats
91.529	ELT - TSO C126 406 MHz after 22/11/2007	Kannad 406-AF Fitted as Standard
91.531	Oxygen Indicators - Volume/Pressure/Delivery	Oxygen system certified to FAR §23.1441 through 1449
91.535	Oxygen Equipment for Pressurised Aircraft: (1) Flight Crew Member On-Demand Mask; (2) Pax mask, Portable oxygen equipment (3) Crew Member – Pax Oxygen Mask and Portable (4) Minimal Supplemental Oxygen Quantity (5) Specified Supplemental/Therapeutic Oxygen	Oxygen is supplied to the pilots and passengers through a single 50 cu. ft. bottle pressurized to 1850 psi at 21°C (70°F). Flight crew quick donning masks and regulators are stowed in oxygen mask boxes near each seat. The aft forward-facing seats share one extra oxygen

	Quantity Above FL250 (1) Quick-Donning Crew On-Demand Mask (2) Supplemental O ₂ Masks for all Pax/Crew and Toilets (3) 15 Minutes Therapeutic Supply Above FL300 (1) Total Outlets Exceed Pax Seats by 10% (2) Extra Units Uniformly Distributed throughout Aircraft (3) Automatically Presented if Cabin Altitude ≥ 14000 ft. (4) Manual Means of Deploying Pax Masks Available	mask. The minimum oxygen dispatch pressure required to perform an emergency descent to 10000 ft with no obstacle clearance and 10 minutes of oxygen supply for each occupant of the airplane (2 pilots and 7 passengers on board) is 730 psi. For FAR 135/EASA EU-OPS 1 operations the pressure required for an emergency descent to 10000 ft with 10 min.s of obstacle clearance at 22000 ft, oxygen supply of 2 hours for the pilots and 30 min.s for the 7 pax would be 1590 psi. NON-COMPLIANCE: The passenger masks automatic deployment is initiated when cabin pressure attains 14700 ft (+300/-300 ft) - CAR §91.535(c) requires 14000 ft.
	NOTE: This oxygen system non-compliance is accepted under the provisions of General Exemption 14/EXE/80	
91.541	SSR Transponder and Altitude Reporting Equipment	* GTX33/D Mode S transponder Fitted as Standard * Optional fit and models with the G3000 avionics system fitted with GTX33 ES and GTX33D ES ADS-B Out
91.543	Altitude Alerting Device - Turbojet or Turbofan	* Fitted as Standard
91.545	Assigned Altitude Indicator	N/A - Altitude alerting device fitted
A.15	ELT Installation Requirements	<i>To be determined on an individual aircraft basis</i>

Civil Aviation Rules Part 135

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
135.353	Instruments and Equipment – General	Dual Capability – Long Range Communication Equipment NON-COMPLIANCE – The EMB-500 is optionally equipped with one HF and one SATCOM. The comm.s function is controlled through the one audio panel GMA1. In case of a (single) failure of this item no long range communication would be available.
135.355	Seating and Restraints – Shoulder harness pilot seats	FAR §23.785
135.357	Additional Instruments (Powerplant and Propeller)	EMB-500 meets a CAR 21 Appendix C design standard
135.359	Night Flight	Landing light, Pax compartment Fitted as Standard – See AFM Kinds of Operation List
135.361	IFR Operations	Speed, Alt, spare bulbs/fuses Fitted as Standard – See AFM Kinds of Operation List
135.363	Emergency Equipment (Part 91.523 (a) and (b))	Operational requirement – Compliance as applicable
135.367	Cockpit Voice Recorder	N/A – Only for 2-crew helicopters with more than 10 passengers
135.369	Flight Data Recorder	Not Applicable – Less than 10 passenger seats
135.371	Additional Attitude Indicator	IESI Fitted as Standard

- NOTES:
1. A Design Rule reference in the Means of Compliance column indicates the Design Rule was directly equivalent to the CAR requirement, and compliance is achieved for the basic aircraft type design by certification against the original Design Rule.
 2. The CAR Compliance Tables above were correct at the time of issue of the Type Acceptance Report. The Rules may have changed since that date and should be checked individually.
 3. Some means of compliance above are specific to a particular model/configuration. Compliance with Part 91/119 operating requirements should be checked in each case, particularly oxygen system capacity and emergency equipment.
 4. Acceptable Means of Compliance to Rule Part 39.51(a)(2)(i) only, in terms of State of Design, is considered to be Brazil (ANAC).

Attachments

The following documents form attachments to this report:

Embraer Drawing 500-00519-901 – Three-view Model EMB-500 “Phenom 100”
Copy of ANAC Type Certificate Data Sheet Number EA-2008T09

Sign off




 Greg Baum
 Team Leader Product Certification (acting)




 Checked – Tim Dutton
 Snr Tech Specialist FTE

Appendix 1

List of Type Accepted Variants:

<i>Model:</i>	<i>Applicant:</i>	<i>CAA Work Request:</i>	<i>Date Granted:</i>
EMB-500	Embraer S.A.	13/21B/14	21 March 2014
EMB-500*	Embraer S.A.	20/21B/19	25 June 2020

* PW617F1-E engine variant and various major changes.