EMBRAER PRAETOR 600

2024 | 4th Quarter 2024

HOLSTEIN AVIATION

PROVEN PROFESSIONALS • TRUSTED PARTNERS

QUESTIONS?

I CAN HELP

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ATTACHMENT "A"
AIRCRAFT CONFIGURATION

1. OPTIONAL EQUIPMENT

The following optional equipment are included in the Aircraft Basic Price:

- ELT / NAV
- Single ADF
- E2VS – Embraer Enhanced Vision System
- Single Inertial Reference System (IRS)
- Cockpit Display of Traffic Information (CDTI)
- Third VHF
- Dual HF plus SELCAL
- ACARS Datalink
- ACARS over Iridium
- CPDLC over ATN (EASA Link2000+) and FANS 1/A+ CPDLC Package
- Satellite Datalink Weather (XM®)
- Lightning Detection System
- Surface Management System
- Reactive Windshear
- Predictive Windshear System (PWS) plus Vertical Weather (VWX)
- Synthetic Vision Guidance System (SVGS) - FAA ONLY
- Paperless Operation Capability
- Pilot Tables
- Autobrake
- One Life Raft + life line
- 115 ft3 Capacity Oxygen Cylinder
- 110-Minute Cargo Fire Suppression System
- Crash Axe
- Towing Kit
- Fuel Caps with Lock
- Hydraulic System 1 Electric Pump
- Cabin Arrangement B: 9-Passenger Configuration with a RHS 3-Seat Divan in the Aft Cabin
- Cockpit/Galley Curtain
- Galley/Cabin Curtain
- Galley/Cabin Pocket Door
- Cabin /Lavatory Electrical Pocket Door
- Side Facing Seat
- Main Door Thermo-Acoustic Curtain
- Microwave Oven - Position 3
- Shelf - Position 4
- Drawers - Position 5
- First Standard Unit - Position 7
- Drawer - Position 8
- Provisions for Coffee Machine - Position 9

- Belted toilet
- Internal Luggage Compartment Shelves
- Servicing Ladder
- Baggage Compartment Ladder
- Heating system for Baggage Compartment
- Iridium Satellite Phone
- Gogo AVANCE L5
- Enhanced Cabin Management System
- Galley Media Compartment
- Individual Receptacles – 2 Tablet Holders Included
- XM Satellite Radio
- High Power Outlets - 115V
- Cabin throw rugs
- Logo Light

NOTE: The optional equipment affects the Aircraft weight and the Aircraft performance will be adjusted accordingly.

1.1 Notwithstanding the above, Buyer may, no later than **August 6, 2023**, make a different selection of optional items, which will be charged according to the then current Options Guide Price. For the avoidance of doubt, should the final optional items selection be of a lesser value than the current selection, the Basic Price remains unchanged.

The options selected by Buyer, including any price and weight adjustments, if applicable, must be reflected by means of an amendment to the Agreement.

2. EXTERIOR FINISHING

Buyer shall inform Embraer on or before **October 31, 2023**, of its desired paint scheme which must be selected from one of the designs and colors offered and made available by Embraer. As a special concession from Embraer to the Buyer, Buyer may select, at no additional charge, any of the *optional or brand* designs and colors made available by Embraer, with no customization. The exterior finishing selected by Buyer, including any price adjustment, if applicable, must be reflected by means of an amendment to the Agreement.

3. INTERIOR FINISHING

Buyer shall inform Embraer on or before **June 9, 2023**, of its choice of materials and colors of all and any item of interior finishing offered and made available by Embraer. As a special concession from Embraer to the Buyer, Buyer may select, at no additional charge, the optional items listed below:

- Customized Seat and Divan Inserts
- Stone Flooring on Galley and Lavatory Floors
- Special Carpets (Silk and/or Carving)

The interior finishing options selected by Buyer, including any price and weight adjustments, if applicable, must be reflected by means of an amendment to the Agreement.

4. TRADEMARKS, LOGO, AND SPECIAL DESIGN BY BUYER

Buyer will be solely responsible for any specific exterior or interior requests, including, but not limited to painting design, logo, artwork, trademark or trade name. Buyer shall indemnify and hold Embraer harmless for any losses,

claims, damages, expenses, and costs, including attorney fees arising from claims of any infringement of any intellectual property rights.

5. REGISTRATION MARK, TRANSPONDER AND SELCAL CODES

Buyer shall notify Embraer of the following configurable items:

(a) Registration marks: no later than **December 15, 2023**.

(b) Transponder and Selcal codes: no later than **March 30, 2024**.

(c) Placards will be written in English only.

6. EMBRAER'S RIGHTS TO PERFORM ON BUYER'S BEHALF

Embraer has the right to deliver the aircraft (i) in a snow white overall fuselage color, (ii) with an interior finishing selected by Embraer, at its reasonable discretion, (iii) without registration marks, (iv) with a non-coded transponder, (v) with interior/exterior placards in English language only, if in any of such items Buyer fails to notify Embraer with the necessary information within the stipulated timeline. No compensation will be due to Buyer and Buyer agrees that any action by Embraer under this Article will not constitute (a) a waiver or release of any of Buyer's obligation under the Agreement, (b) a waiver of any default event which may arise out of Buyer's non-performance of Buyer's obligation, (c) a waiver by Embraer of any remedy or right available to Embraer under the Agreement.

7. CHANGES

Major changes in relation to the specification of the Aircraft which are result of (a) product improvements, (b) Buyer's requests, or (c) modifications in the certification regulations which become mandatory (or modifications in the certification regulations which are not mandatory and are made available by Embraer) are not included in the price of the Aircraft. The price for incorporation of such major changes will be informed in writing by Embraer to Buyer and upon execution of an amendment to this Agreement by the parties, such changes will be incorporated. Should Buyer not approve the incorporation of such change, the change will not be incorporated in the Aircraft.

8. CONTROLLED ITEMS

This Aircraft is equipped with a Global Positioning System - GPS (ECCN 7A994) and with an IRS - Inertial Reference Unit (ECCN 7A103.A) which are components controlled by the U.S. Government and authorized for export only to the country of ultimate destination, for use by the ultimate consignee or end-user(s) herein identified. These controlled components may not be resold, transferred, or otherwise disposed of, to any other country or person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

AIRCRAFT INTERIOR FINISHING

Upper Sidewall / Valance Panels / Sidewall Mask	Tapis, Ultraleather Pro, ULPROF3412, Ermine
Valance Frame	Tapis, Ultraleather, ULFR5739, Graphite
Seats / Seat Inserts / Divan / Lav Cushion & Pan Els / Lav Bulkhead Pad *(Seat & Divan Outer Contrasting Stitch in Deep Navy / Seat & Divan Insert -Ipanema matching insert stitching / Matching Webbing)*	Aeristo, Aeronappa, Adrien, AN-W-0302
Seat Shroud / Divan Surround / Divan Tuxedo / Lower Sidewall / Magazine Holder Internal & External / Table Shroud Bottom / Table Shroud	Aeristo, Volarero, Geneva, VA-M-0401
Internal Stowages	Townsend, Stingray Serenade Cowhide, Metallic Above
Curtain	Tisca, Mira X Crespo 8622, 70 Nacht, 100305-12
Countertop (Galley & Lav)	Corian, Everest
Stone Floors (Galley & Lav)	Labrador Blue Pearl
Metal Parts	Smoked Nickel Satin
Carpet	Scott Group, Focus Grid 5/16 Diag W/Silk, W87648
Cockpit	Grey

Color may vary between samples and/or the finished product due to different dye lots and manufacturing qualities of this product. It is susceptible to change over time prompted by exposure to light, humidity, temperature, cleaning and other elements. Due to sample sizes, all inherent characteristics may not be represented.

Interior image is a rendered representation. For color accuracy please reference interior color board.

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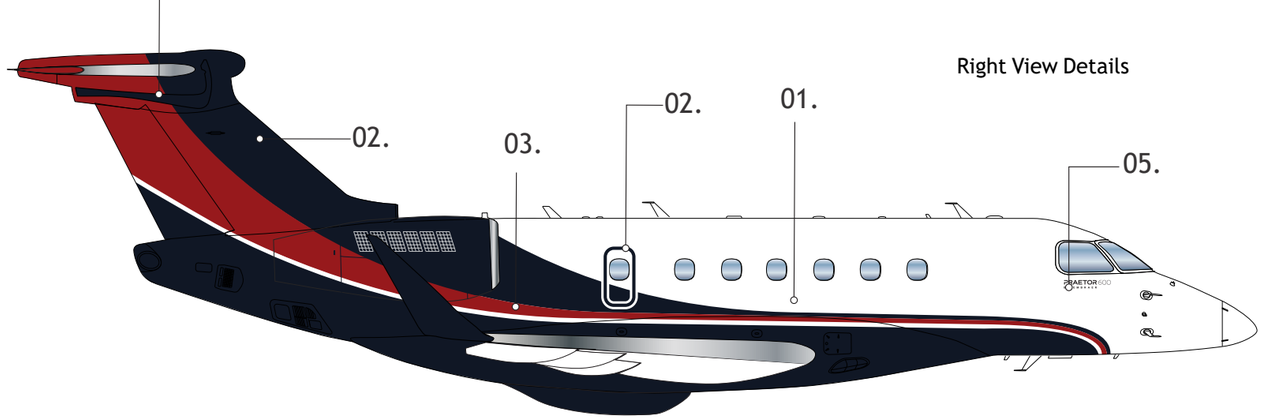
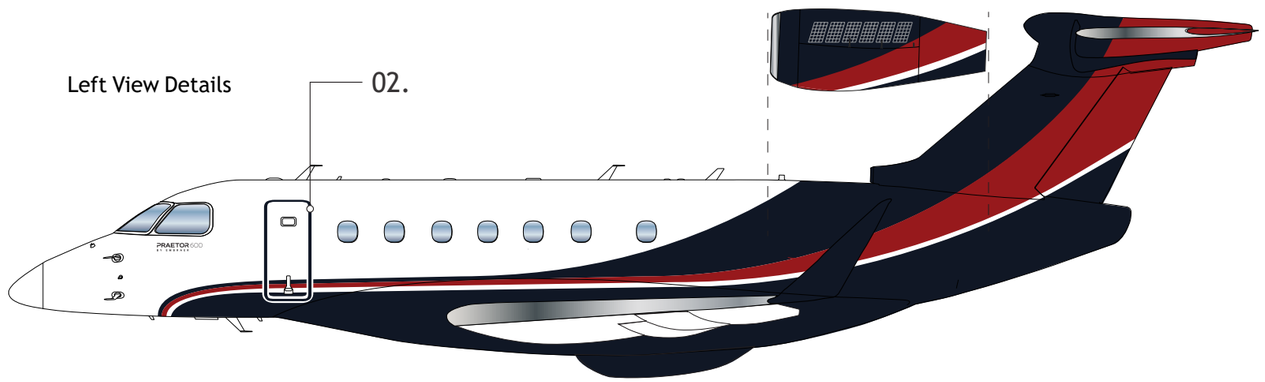
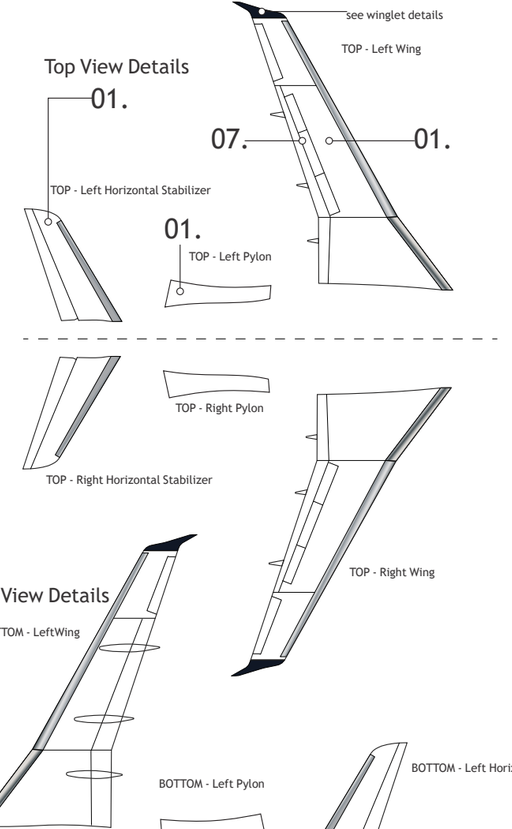
Right View Details



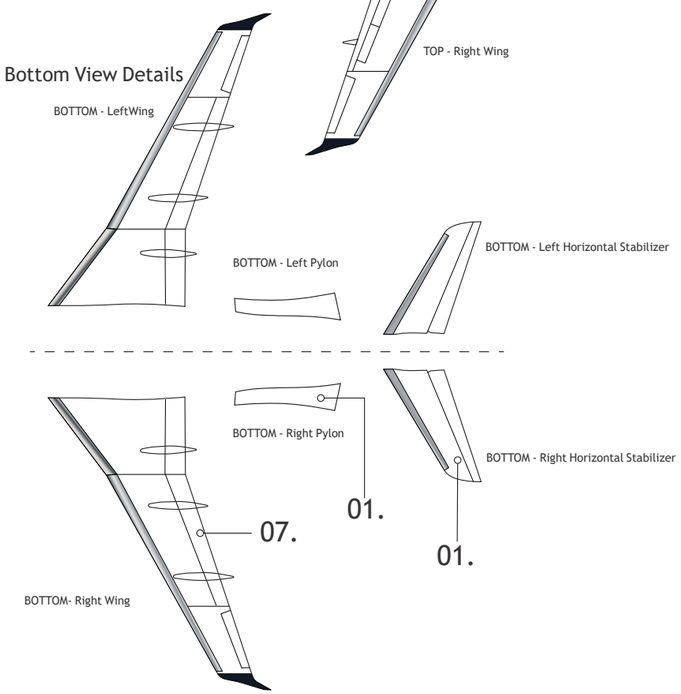
Left View Details



Top View Details



Bottom View Details



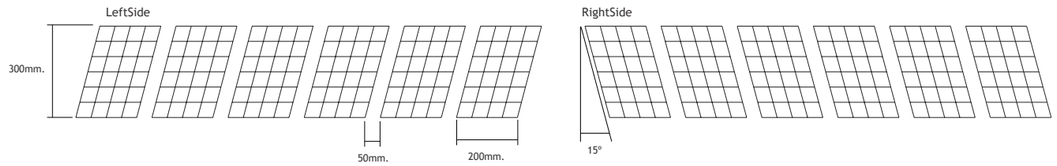
Color Reference:

01	Embraer Snow White / G10042 (Solid)	04	Grey Pearl / E83049 (Metalic)	07	Teflon to match Embraer Snow White
02	Flag Blue II / G20024 (Solid)	05	Lamp Black / E99067 (Metalic)		
03	Candy Red / E99100 (Metalic)	06	Teflon to match Flag Blue II		

Registration Mark Details:

Country of registration: United States

Registration Mark Color: 04 Grey Pearl / E83049 (Metalic)



ABCDEFGHIJKLMNOPQRSTUVXYWZ1234567890
ABCDEFGHIJKLMNOPQRSTUVXYWZ1234567890

Scheme 54 Proposal 01_RevIR

DF Aviation File Date: September 18, 2023

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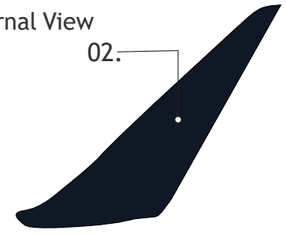
REVISION TRACKING	
Rev.IR Initial Rev.	JR

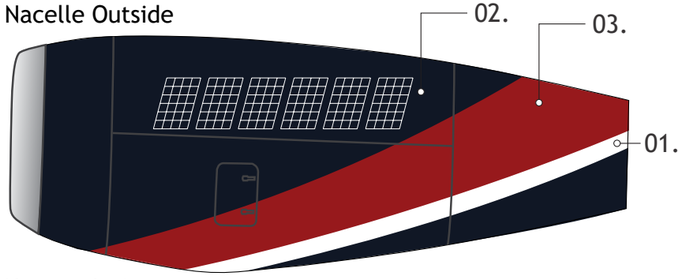
PRAETOR 600
BY EMBRAER

External View



Internal View

Nacelle Outside



Nacelle Inside

Scheme 54 — Proposal 01_RevIR

DF Aviation — File Date: September 18, 2023

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Customer Signature — Date

PRAETOR 600

BY EMBRAER

TECHNICAL DESCRIPTION

LIMITED WARRANTY AND GUARANTEE

Rev F – SEPTEMBER 2021

THE INFORMATION CONTAINED HEREIN PROVIDES A GENERAL DESCRIPTION ABOUT DESIGN, SYSTEMS, EQUIPMENT, PERFORMANCE AND TO PROVIDE THE LIMITED WARRANTY OF THE PRAETOR® 600 EXECUTIVE JET. GUARANTEED SPECIFICATIONS ARE LISTED IN SECTION 1.6 OF THIS PRELIMINARY TECHNICAL DESCRIPTION AND REPRESENT THE ONLY BINDING GUARANTEE.

EMBRAER RESERVES THE RIGHT TO REVISE THIS DOCUMENT WHENEVER OCCASIONED BY PRODUCT IMPROVEMENTS, GOVERNMENTAL REGULATIONS, OR OTHER GOOD MANUFACTURING AND/OR VENDOR CAUSE AS LONG AS SUCH REVISIONS DOES NOT ADVERSELY AFFECT THE GUARANTEED SPECIFICATIONS LISTED IN SECTION 1.7 OF THIS PRELIMINARY TECHNICAL DESCRIPTION.

ALL FIGURES, FINISHING MATERIALS, AND COLORS, IN THIS PRELIMINARY TECHNICAL DESCRIPTION ARE FOR ILLUSTRATION PURPOSE ONLY, AND MAY NOT REPRESENT THE REAL AND FINAL PRODUCT ACCURATELY.

IN THE EVENT OF ANY CONFLICT BETWEEN THE PRAETOR® 600 EXECUTIVE JET PRELIMINARY TECHNICAL DESCRIPTION AND THE PURCHASE AGREEMENT, THE PURCHASE AGREEMENT SHALL GOVERN.

1 Introduction

1.1. General

The Praetor® 600 Executive Jet (model designation EMB-550) is a high-performance Super Midsize Jet designed for the business aviation market. Its impressive cabin size and state-of-the-art technology were conceived to meet the increasing demand for high- quality business aircraft in this promising segment.

The Praetor® 600 Executive Jet is predominantly of aluminum alloy construction with optimized use of composite materials to reduce weight. It is a low-winged monoplane, “T” tailed, with vertical and horizontal stabilizers, and has retractable tricycle-type double-wheeled nose and main landing gear. It is equipped with two Honeywell HTF7500E medium bypass ratio turbofan engines mounted on aft fuselage pylons. Fuel is stored in integrated wing tanks located in each semi-wing extending to the wing-stub. This offers outstanding range for the typical missions among aircraft in its category.

The primary flight control systems (elevators, ailerons, rudder and multi-function spoilers) is electronically-controlled and powered by electro-hydraulic servo actuators (EHSA) using Embraer’s state-of-art digital Fly-by-Wire (FBW) technology.

1.2. Certification

The Praetor® 600 is certified to transport category aircraft standards by ANAC – the Brazilian Civil Aviation National Agency, by the FAA – Federal Aviation Administration of the United States, and EASA – European Aviation Safety Agency. It will comply with RBHA 25, FAR 25, and CS-25, including VFR, IFR, day, night, and RVSM operation.

Differences in the aircraft configuration may occur depending on specific certification regulations of each certification authority. This may result in additional price and weight to the aircraft baseline configuration described in this Technical Description. Additional certification by authorities other than those listed above will be evaluated pursuant to a formal request. Accordingly, any requirement for additional equipment may affect aircraft performance, and may be subject to additional costs.

1.3. Three View

70 ft 6 in (21.50 m)

21 ft
6.41 m

68 ft 1 in (20.74 m)

24 ft 1 in
7.34 m

1.4. Weight and Performance

All performance data are valid for an aircraft featuring a baseline interior configuration with no optional equipment, and operating in International Standard Atmosphere (ISA) conditions. Take-off and landing field lengths are valid for sea level, hard surface, and dry runways with zero wind. Actual performance values will vary with some factors, such as environmental conditions and aircraft configuration.

1.4.1. Take-off Field Length

4,436 ft (1,352 m) (±3%) @ Sea Level, 4 passengers @ 200lb (91 kg), ISA, maximum fuel, baseline airplane, Balanced Field Length per FAR Part 25, dry runway.

1.4.2. Landing Distance

2,165 ft (660 m) (±3%) @ Sea Level, 4 passengers @ 200lb (91 kg), baseline airplane, ISA, unfactored, landing weight with 4 passengers and NBAA IFR fuel reserves (200 nm alternate), per FAR Parts 25 and 91, dry runway.

1.4.3. Climb Performance

13.3 min to climb to FL370 @ MTOW, Sea Level, ISA, all engines operating.

1.5. Range (*)

4,018 nautical miles (±3%), 4 passengers @ 200lb (91 kg), baseline airplane, LRC, ISA, no wind en-route, NBAA IFR reserves.

(*) Indicated range is for an aircraft configured with the baseline airframe, equipment, interior layout, finishing materials, and with no options installed. Fuel density reference is 0.803 kg/liter (6.7 lb/ U.S. gallon).

1.5.1. Maximum Takeoff Weight (MTOW)

42,857 lb (19,439 kg).

1.5.2. Maximum Landing Weight (MLW)

37,478 lb (17,000 kg).

1.6. Operational Envelope

1.6.1. Maximum Operating Altitude

45,000 ft (13,716 m).

1.6.2. Maximum Operating Speed

Vmo 320 KCAS / Mmo 0.83.

1.7. Guarantees

1.7.1. Range (*)

4,018 nautical miles (±3%), 4 passengers @ 200lb (91 kg), baseline airplane, LRC, ISA, no wind en-route, NBAA IFR reserves.

(*) Indicated range is for an aircraft configured with the baseline airframe, equipment, interior layout, finishing materials, and with no options installed. Fuel density reference is 0.803 kg/liter (6.7 lb/ U.S. gallon).

2 Interior

2.1. Flight Deck

The flight deck is furnished with leather-covered seats, cup holders, stowage compartments, sun visors and sunshades, air outlets and emergency equipment. The crew seats recline, move forward, backward and vertically.

2.2. Main Cabin

The main cabin (baseline layout) includes four independent club seats that comfortably accommodate eight passengers, one forward RH galley, one forward LH cabinet, four foldable tables, one aft lavatory and one stowage compartment that is accessible in-flight.

The flat-floor passenger cabin is approximately 6 ft (1.82 m) high and 27ft 6in (8.38 m) long measured from the cockpit divider to rear wall of the aft stowage compartment.

Each seat is carefully positioned beside a window for a better viewing experience. Seats have three-point restraint systems that permit lateral, backward and forward movement for maximum passenger comfort and safety. All seats swivel and recline fully-flat.

Wide windows fill the cabin with natural light. Additionally, an LED (light emitting diode) lighting features indirect upwash and downwash illumination that also provides reading light for each seat.

2.3. Lavatory and In-flight Accessible Stowage Comp.

The aft lavatory has a window and a vanity with mirror and sink. The vacuum toilet is serviced externally. A pocket door or a curtain separates the lavatory from an accessible 35 ft^3 pressurized baggage compartment. The 10 ft^3 stowage space in the cabin plus the capacity in the in-flight accessible baggage compartment yield 45 ft^3 of interior storage volume.

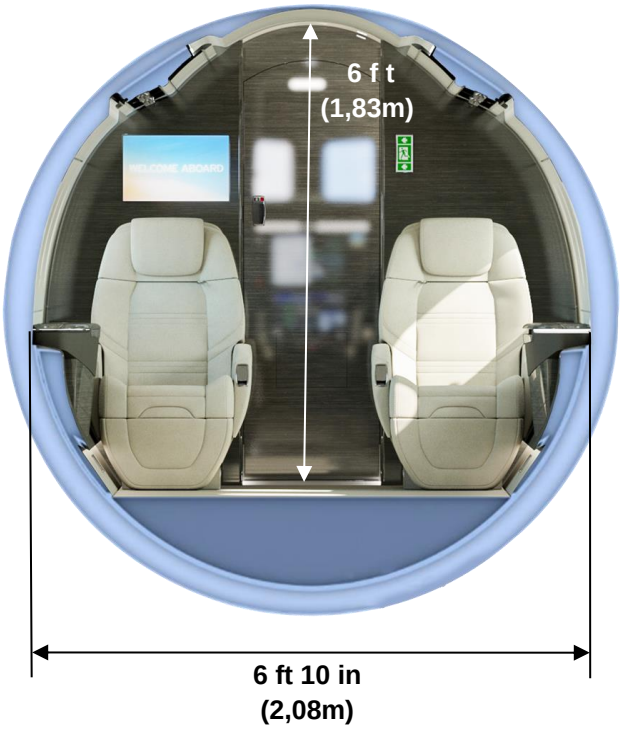
2.4. Aft Baggage Compartment

A 110 ft^3 non-pressurized baggage compartment is located in the tail cone and is accessed by an external left-side door. The compartment is equipped with a fire protection system and can be heated (optional).

2.5. Baseline Layout

1 - Forward Cabinet
2 - Wet Galley
3 - Executive Seat
4 - Foldable Table
5 - Pocket Door
6 - Lavatory
7 - Vanity Cabinet
8 - Vacuum Toilet
9 - In-Flight Accessible Baggage Compartment
10 - Externally-Accessed Baggage Compartment

2.6. Cross Section



Note: Dimensions may vary with interior configuration

2.7. Standard Configuration

2.7.1. Flight Deck

Crew seats:

- Leather upholstery;
- Sheep skin covers;
- Five-point restraint system;
- Seat back recline;
- Vertical adjustment;
- Forward and backward adjustments.

Stowage compartments

Sun visor and sunshade (for each crewmember)

Cup holders

Air outlets

Two USB charging ports

Two power outlets (110VAC / 60Hz) 150W

Emergency equipment:

- Fire extinguishers;
- Oxygen masks and smoke goggles;
- PBE;
- Flashlights;
- Life vest.

2.7.2. Main Cabin

Seats:

- Head rest;
- Full berth recline capability;
- Three-point restraint system;
- Position adjustments (mechanical):
  - Forward and back, inboard-outboard tracking;
  - Swivel.
- Life vest.
- One USB charging port per seat

Galley:

- Sink and faucet (hot-cold water);
- Potable water tank;
- Countertop (work surface);
- Lighting;
- Storage compartments;
- Ice drawer;
- Trash container;

- Power outlet (110VAC / 60Hz) 150W;
- The potable water in the galley and lavatory drains overboard by pressing a button on a cockpit panel.

Sidewall console (amenities):

- Foldable table;
- Cup holders;
- Passenger control unit;
- Stowage box;
- Magazine pouches.

Pleated window shades

FWD LHS Stowage Compartment.

Four power outlets (110VAC / 60Hz) 150W

Cabin Management System:

- Seven Select 200 PCUs installed in the cabin;
- One Select 200 VIP PCU installed in the forward cabin;
- One Select 200 PCU installed in the galley;
- One 19” HD Monitor installed in the forward LHS bulkhead;
- Audio System;
- One Select 100 PCU installed in the lavatory.

2.7.3. Lavatory

Vacuum toilet serviced externally (waste)

Pocket door (optional curtain)

Vanity cabinet with sink and faucet (hot-cold water)

Water tank

Power outlet (110VAC / 60Hz) 150W

In-flight accessible stowage compartment

The potable water in the lavatory and galley drains overboard by pressing a button on a cockpit panel.

2.7.4. Aft baggage compartment

Fire detection system

External door

3 Flight Deck

3.1. General

The Embraer Praetor 600, in its standard configuration, features these avionics:

- ADS-B Out;
- CAT-II
- Four 15.1-inch active matrix liquid crystal smart displays;
- Dual Air Data System RVSM compatible;

- Dual Enhanced Attitude Heading Reference System (AHRS);
- Dual Flight Management System (FMS) with Take-off and Landing performance calculation capability (TOLD);
- Dual Flight Director with fail passive autopilot;
- Dual Channel Data Module Cabinet (DMC);
- Dual Display Control Panel (DCP);
- Dual Multifunction Keyboard Panel (MKP);
- Dual Cursor Control Panel (CCP);
- Dual Channel Aural Warning Unit (AWU);
- Dual Digital Audio Control Panel (ACP);
- Dual VHF communication transceivers;
- Dual Global Positioning System (GPS) with SBAS/WAAS;
- Dual navigation receivers (VOR/ILS/MB);
- Two Modular Integrated Processing Cabinets (IPC);
- Synthetic Vision System (SVS) with full-screen presentation;
- Autothrottle system;
- Engine Indication and Crew Alerting System (EICAS);
- Graphical system synoptic presentations;
- Navigation chart capability - Integrated Flight Information System (IFIS);
- High resolution terrain maps;
- Vertical profile window;
- Standby Flight Information System (SFIS);
- Flight Control Panel (FCP);
- Reversionary switch panel;
- Digital audio system;
- Multiscan weather radar (18” antenna) with turbulence detection mode;
- Distance Measuring Equipment (DME) Receiver;
- Radio altimeter;
- Traffic Surveillance System (Integrated TCAS II and Enhanced Mode S Transponder System);
- Second Enhanced Mode S Transponder;
- Terrain Awareness and Warning System Class A (TAWS-A);
- Emergency Descent Mode;
- Onboard Maintenance System (OMS);
- Electronic checklist;
- Cockpit Voice Recorder (CVR);
- Flight Data Recorder (FDR);
- Three-frequency Emergency Locator Transmitter (ELT);
- Cabin announcement;
- Structural provisions for Enhanced Vision System (EVS);
- HEPA filter.

3.2. Overview

The flight deck layout includes four high-resolution 15.1-inch diagonal LCDs in a “T configuration” landscape format.

The glareshield mounted Display Control Panels (DCP) and Flight Control Panel (FCP) control the primary flight displays and autopilot control modes. The pedestal mounted Multi-function Key Pad (MKPs) and Cursor Control Panel (CCPs) control and access the Multifunction Window (MFW).

The advanced human-machine interface allows intuitive point-and-click access to flight planning, aircraft performance monitoring, and hazard avoidance.

3.3. Avionics

3.3.1. Primary Flight Display (PFD)

The PFDs, located in front of each pilot station, feature a Synthetic Vision System (SVS) as the primary navigation platform.

The SVS provides better situational awareness by using precise navigation and integrated monitoring sensors to generate an unrestricted synthetic view of the external environment whenever visibility is degraded.

Primary tactical information superimposed on realistic SVS 3D topography on the screen enhances flight crew situational awareness. This information includes:

- Attitude Situation Indicator (ASI) for aircraft attitude display, slip-skid, altitude, airspeed and vertical speed with associated parameters, references, warnings and flags. Pilots can select barometric pressure in inches of Hg or hPA and the altitude read-out in feet or meters;
- Lateral and vertical deviation with associated alerts and flags;
- Radio altitude with associated references, alerts and flags;
- Marker beacon annunciation;
- Automatic Flight Control System (AFCS) mode annunciation, Flight Director, references and flags;
- Horizontal Situation Indicator (HSI) for aircraft heading display with associated parameters, references and warnings displayed in a pilot-selected PPOS/ARC or ROSE compass format;
- Lateral navigation with associated annunciation, references and warnings;
- Flight path vector, speed error and acceleration cue.

The flight path vector symbol shows the aircraft track which adds realism to the navigation display – pilots can quickly recognize the aircraft's path in relation to the terrain. The flight path vector is an intuitive navigation feature that improves the accuracy of pilot-commanded maneuvers and pilot situational awareness.

3.3.2. Multifunction Display (MFD)

The MFDs are located on the center panel. Pilots can select this information on the PFD:

- Strategic map with selectable vertical situation display (VSD)
- Optional charts
- System synoptic displays
- FMS text
- Checklist
- Radio tuning
- Integrated Display Control Unit (ICDU)
- Database configuration
- Maintenance

3.3.3. Engine Indication and Crew Alerting System

The EICAS window displays:

- Engine indications including N1, ITT, N2, fuel flow, oil temperature, reference settings, status, warnings, and flags;
- Crew alerting caution, warning, advisory, and status annunciations;
- Landing gear, spoiler, flap, trim position indicators and annunciations;
- Fuel quantity;
- APU speed and temperature;
- Cabin delta P, zone temperature, pressure, and landing field elevation;

3.3.4. Standby Flight Information System (SFIS)

The SFIS displays attitude, heading, airspeed, Mach, altitude, vertical speed, lateral acceleration (side slip) and ILS information. Pilots can select barometric pressure in inches of Hg or hPA and the altitude read–out in feet or meters.

3.3.5. Flight Management System (FMS)

The FMS has a wide range of capabilities to reduce flight crew workload and improve situational awareness.

Features include: lateral navigation (LNAV) and vertical navigation (VNAV) capability for en-route, non-precision approaches with automatic transition to precision approaches; Satellite Based Augmentation System (SBAS) based LNAV / VNAV approaches; and Localizer Performance with Vertical Guidance (LPV) approaches using Wide Area Augmentation System (WAAS) signal. LPV provides lateral and vertical guidance which is very similar to what is used to show Category 1 ILS approaches.

The primary function of the FMS is to provide high-accuracy lateral navigation (LNAV) and vertical navigation (VNAV) and a variety of aircraft navigation and performance functions:

Lateral and Vertical Flight Planning Capabilities:

- multi-sensor RNAV;
- fully-coupled LNAV-VNAV guidance;
- automatic FMS to localizer capture;
- holding patterns;
- parallel offset;
- airways and nearest airports;
- fix information;
- lateral and vertical Direct-To (DTO);
- lateral course intercept;
- alternate destination;
- second flight plan;
- planned step climbs and descents;
- predictive RAIM for approaches;
- pilot defined waypoints and routes.

Graphical Flight Planning Capabilities:

- insertion, deletion of waypoints, procedures and airways;
- perform lateral and vertical Direct-To and course intercept;
- quick re-route;
- airway overlay auto-selection;
- modify speeds, altitudes, RNP at any waypoint;
- create pilot-defined waypoints and fixes;
- define holding patterns;
- define parallel offsets;
- define VNAV descent path;

- define temperature compensation for VNAV approaches;
- perform vectors to approach transition;
- graphically tune Navaids and traffic control center frequencies.

Performance, Navigation and Radio Tuning Capabilities:

- climb, cruise and descent fuel and time estimates;
- speed target;
- approach references;
- automatic position initialization to Global Navigation Satellite System (GNSS) with pilot confirmation;
- airport communication frequency look-up;
- multi-sensor area navigation;
- automatic navigation radio tuning;
- Navaid inhibit GPS satellite deselect for P-RAIM.

3.3.6. Integrated Flight Information System (IFIS)

The IFIS graphically displays navigation charts in the MFD window using interactive menus.

3.3.7. Automatic Flight Control System (AFCS)

The AFCS is integrated with the Fly-by-Wire (FBW) flight control system for improved overall performance, reliability and safety. It has these functionalities:

- Autopilot;
- Flight guidance;
- Autothrottle.

When engaged, the Autopilot follows flight guidance commands related to the selected modes (the Autopilot defaults to basic modes if no mode is selected). The flight guidance commands are displayed on the PFDs through the flight director. Command bars can be displayed with the Autopilot off. The flight director uses the flight path vector, except for take-off mode when it uses the attitude reference bar.

The Autothrottle system commands the throttle quadrant to position the levers for thrust and speed. It is integrated with the flight guidance and flight management systems.

The main pilot interface with the AFCS is via the Flight Control Panel (FCP) in the glare shield. The FCP allows the pilot to engage/disengage Autopilot/Autothrottle which activates the Flight Director, and select the lateral and vertical modes. Vertical speed, reference speed, altitude and heading, can be set in the FCP for AFCS navigation.

3.3.8. Turbulence Weather Radar System

The Turbulence Weather Radar System with multi-scan capability consists of a gyro-stabilized 18-inch flat plate antenna, and four-color (green, yellow, red and magenta) information displays. It has 320 nm coverage and a 120-degree scan angle with independent range. Either pilot can select these modes: Test, Standby, Auto Tilt, Weather Only, Weather Plus Turbulence, Turbulence Only and Ground Map.

3.3.9. Digital Audio System

The audio system has two Audio Control Panels (ACP) in the cockpit.

3.3.10. Radio Management

Two Radio Interface Units (RIU) provide radio tuning, radio data concentration, audio management, and aural alerting.

3.3.11. Navigation and Communication Radios

The dual multi-channel VHF transceiver has AM voice communications in the frequency range from 118.00 MHz through 136.975 MHz with selectable at 8.33 or 25 kHz increments.

The navigation system is comprised of two VOR/ILS/MB receivers and a three channel Distance Measuring Equipment (DME) receiver.

3.3.12. Global Navigation Satellite System

The GPS supports all SBAS-based operations including Localizer Performance with Vertical guidance (LPV) approaches.

3.3.13. Transponder and TCAS System

The Traffic Surveillance System is comprised of an integrated TCAS II and Transponder unit, and a second Mode S transponder unit.

3.3.14. Radio Altimeter

A Radio Altimeter is installed. The radio altitude is displayed on both PFDs.

3.3.15. Terrain Avoidance Warning System (TAWS)

The TAWS system uses a high-resolution terrain database, has Ground Proximity Warning System (GPWS) functions, and Terrain and Obstacle Awareness.

3.3.16. Information Management System (IMS)

The IMS contains an onboard data loader allowing navigation, electronic chart, and terrain databases to be loaded in to the system. Aircraft maintenance data can also be downloaded. A USB port is available when removable media is required.

3.3.17. Onboard Maintenance System (OMS)

The OMS collects data from components in the avionics and aircraft systems. Fault or status information gathered from these components can be displayed on the multifunction windows.

The OMS interfaces with IMS or a laptop computer running Remote Maintenance Access (RMA) pages in a web browser.

4 Exterior and Structure

The primary aircraft structure is made of machine-formed aluminum sheets and extruded parts. Chemical milling is used extensively in the manufacturing process to optimize strength and weight. Besides aluminum, metallic materials are used in areas with unique structural requirements. Composite materials are used selectively to reduce weight, optimize manufacturing, make component replacement easier, and to protect areas subject to routine damage.

The aircraft fuselage is painted a snow-white color. Up to three accent stripes can be chosen from designs offered by Embraer. Leading edges of wings, the horizontal stabilizer, and engine inlets are polished bare metal.

Embraer applies only solid coatings on the aircraft lower lobe fuselage (bilge area) because:

- special-effect coatings (acrylic-polyurethane base) can be damaged by Skydrol or fluid spills;
- solid colors are more resistant and better suited for the lower lobe fuselage.

The company's paint warranty does not cover special-effect coatings on the lower lobe fuselage. Areas housing antennae are not painted because coatings can cause electrical interference.

5 Wing

The aluminum wing was designed using advanced optimization algorithms. These were coupled with high-speed (transonic flight) and low speed computational fluid dynamics analyses to ensure the best balance between cruise speed, required range, runway performance and overall costs.

The wing was designed to be simple. It was also designed to optimize fuel capacity, the high-lift system (flaps) area, and the internal volume for other elements in order to maximize performance.

The wing's "cranked" leading edge helps achieve the fuel volume and weight targets without penalizing aerodynamic efficiency. The wing is fully damage tolerant - its three-spar arrangement encloses the integrated fuel tanks and main landing gear support structures. The engine bleed-air and anti-ice system is in the wing's leading edge.

Advanced composites are mostly found on high lift devices, spoilers and control surfaces. A winglet increases the wing's aerodynamic performance.

6 Empennage

The empennage is a swept T-tail of advanced composite material with metallic attachment fittings.

A dual load path electro-mechanical provides pitch trim function on the movable horizontal stabilizer.

The rudder and elevators are composed of advanced composite material surfaces. Four metallic fittings for each surface ensure damage tolerance.

7 Landing Gear

The aircraft has a retractable tricycle landing gear with two wheels on each strut. Gear extension and retraction are powered by the aircraft's hydraulic systems and are electronically monitored and controlled by a proximity sensing unit. In the event of loss of hydraulic system pressure, the LG can be extended by free-fall. The MLG is of the trailing link type and retracts inboard into the wing. Inboard doors completely enclose the MLG bay for improved aerodynamics and noise. The NLG is of a telescopic type and retracts forward into the nose gear bay and auto-centered when the aircraft is in the air.

Each of the four main wheels is equipped with light carbon brakes controlled by a brake-by-wire system. A digital anti-skid system provides high efficiency braking on wet or dry runways. After take-off, brakes are automatically applied to prevent landing gear retraction with spinning wheels. A touchdown protection feature avoids landing with normal brakes applied. The main brake system is powered by redundant hydraulic and electrical systems and backed up by a separate emergency system with hydraulic energy stored in accumulators.

The steerable nose gear is electronically controlled and hydraulically actuated. The steer-by-wire system is commanded by the rudder. The maximum allowable steering angle varies with aircraft speed. Mechanical disconnection of the nose gear torque link is not required for towing. Electrical switches in the cockpit and on the fuselage are used to set the system in free-caster mode. A towing light box in the nose landing gear tells ground personnel whether the aircraft can be towed.

8 Power Plant and Auxiliary Power Unit

Two Honeywell HTF7500E turbofan engines are pylon mounted on each side of the rear fuselage. The engine is a twin-spool, medium bypass ratio turbofan. Thrust is generated by a single stage, wide chord,

damper less fan and driven by an uncooled and shrouded three stage low-pressure turbine. The compressor has four axial blisks with two stages of variable geometry coupled with a single centrifugal compressor. The compressor is driven by a two-stage high pressure turbine with cooled blades. The combustor is in an annular, effusion-cooled through-flow chamber.

The engine rotation system is supported by a bearing and a seal system containing only two sump areas, both of which are located in cool environments (i.e., no sump under the combustor). The HTF7500E uses a hidden core design. It protects compressor components from foreign object damage (FOD) that could result in premature maintenance.

Dual-Channel Full Authority Digital Electronic Controls (FADECs) provide automatic and efficient engine management and control, engine protection synchronization, and diagnostic capability.

Engine start is via a pneumatic starter. Pneumatic air for engine start can be provided by the other engine, APU or a ground cart.

Bleed air is extracted from the engine for the anti-ice and environmental system.

There is a hydraulically-actuated thrust reverser system.

A fully-automatic Honeywell Auxiliary Power Unit (APU) is installed in the tail cone with a constant-speed gas turbine engine. An electronic control unit starts the APU and coordinates acceleration and operation. The APU is a source of shaft power for the aircraft's electrical generation system, pneumatic power for the environmental control system (air conditioning), and main engine starting system on the ground or in flight.

9 Systems

9.1. Fuel System

Fuel is carried in four integrated tanks, one in each semi-wing, one forward and one ventral tank. The fuel is transferred automatically from the forward and ventral tanks to each semi-wing tank. The left- and right-wing fuel tanks are independent. A fuel balance control system keeps the aircraft within lateral imbalance limitations

Pressurized fuel is supplied for each engine from its respective tank by electric booster pumps. Fuel for the APU is normally provided from the right-hand tank.

Fuel quantity, in-tank fuel temperature, fuel imbalance and fuel low level conditions are monitored through a dual-processed electronic box on cockpit displays.

Refueling is via a single-point pressure refuel system or by gravity through over-wing fuel filler adapters. Defueling is possible through the same adapter used for pressure refueling by suction from the fueling device. The electric booster pumps can be used to speed up defueling.

9.2. Hydraulic System

The hydraulic system is fed by three independent sources with no fluid exchange between them. Hydraulic Systems 1 and 2 use an EDP (Engine Driven Pump) as the primary source of hydraulic power. Hydraulic System 3 has one electric pump for regular use. There is one accumulator for each hydraulic system in order to supply fluid should there be a flow deficit. All three systems use phosphate-ester hydraulic fluid and operate at a nominal pressure of 3,000 psi.

9.3. Flight Controls

These consist of two elevators, two ailerons, three pairs of multifunction spoilers, one rudder, flaps and a movable horizontal stabilizer.

The Primary Flight Controls Systems (elevators, ailerons, rudder and multi-function spoilers) are electronically-controlled and powered by electro-hydraulic servo actuators (EHSA). These employ Embraer's state-of-art digital Fly-by-Wire (FBW) technology. The FBW Flight Controls receive commands directly from the cockpit's dual sidesticks and conventional rudder pedals.

The FBW functions from takeoff to landing. This improves safety and performance, reduces pilot workload, and makes the flight more comfortable for passengers and crew.

The Secondary Flight Control Systems (horizontal stabilizer and flaps) are conventional electro-mechanical systems commanded directly from the cockpit.

All flight controls subsystems are monitored. Status is reported to the On Board Maintenance System to identify maintenance tasks. The diagnostics have a high level of confidence and efficiency.

9.4. Electrical System

The Electrical Power System is 28VDC and comprised of two main generators (one per engine,) one auxiliary generator in the APU, and a ram, air-driven emergency generator (RAT). Two batteries complete the system.

Two completely separate networks, during normal operation, are used to isolate failures. If a power-generating source fails, the networks link automatically to provide sufficient power for the electric buses. There is no significant operational degradation or additional workload.

The system's control and protection functions are automated to keep crew workload to a minimum.

The system provides quality electric power for the buses according to MIL-STD-704E requirements.

The exterior lighting system consists of one red beacon, two anti-collision strobes, two wing-inspection lights, navigation lights, two taxi lights, and two landing lights.

9.5. Ice and Rain Protection

Engine bleed air is used for anti-ice protection of the engine inlets, the leading edges of the wings, and the horizontal stabilizer. Anti-ice protection activates automatically by the primary ice detection system. There is a wing inspection light on the fuselage to help the crew identify ice accretion on the leading edges. Electricity powers the anti-ice air data sensors and windshields. A hydrophobic surface coating treatment repels water for additional windshield rain protection.

9.6. Oxygen System

A 77.0 ft^3 (2.18 m3) oxygen bottle is located in the rear fuselage near the non-pressurized baggage compartment. The bottle has a high-pressure gauge and pressure regulator. It is accessed externally through the fuselage service panel. A larger 115.0 ft^3 (3.25 m3) oxygen bottle is available as an option.

The oxygen bottle is replenished via a remote service fill port located on the rear fuselage. Pressure-demand masks are supplied for the crew. Each passenger seat has an automatic dropdown, constant-flow oxygen mask. The lavatory is also equipped with a dropdown mask. Oxygen flow to the cabin is controlled by a sequencing regulator valve.

9.7. Pressurization System

The Environmental Control System (ECS) manages temperature and pressure-regulated air for heating, ventilation and pressurizing the flight deck and main cabin. Exhaust air from these areas ventilates the avionics compartment before the air is discharged externally through two outflow valves.

The pressurization and air conditioning systems use the engines or APU as sources of bleed air to run a single air machine (ACM).

Bleed air is conditioned as it passes through the ACM and is distributed to the cabin and cockpit via overhead and under floor ducts. A gasper system is available for more individual comfort.

There is a backup system in case of ACM failure. In this situation, engine bleed air is cooled by a dedicated heat exchanger before being distributed to the main cabin and flight deck. When the pressurization system is not in use, ram air ventilation is available for these areas.

Pressurization is controlled by an outflow valve located on the aft pressure bulkhead. A pressurization controller automatically schedules cabin altitude and rate of change to maximize passenger comfort. The pressurization system provides a 5,800 ft (1,768 m) cabin environment at 45,000 ft (13,716 m) altitude.

10 Aircraft Limited Warranty

10.1. Subject to the conditions and limitations hereby expressed, Embraer warrants the Aircraft as follows:

a) For a period of sixty (60) months from the date of delivery of the Aircraft to Buyer, the Aircraft will be free from:

i. Defects in design, materials, workmanship and manufacturing processes in relation to parts manufactured by Embraer or by its subcontractors holding an Embraer part number;

ii. Defects in design, materials, workmanship and manufacturing processes and operation of Embraer's vendors (suppliers) manufactured parts, (not including the engines and engine accessories, Auxiliary Power Unit (APU) and APU accessories), as well as failures of such parts due to incorrect installation or installation not complying with the instructions issued or approved by their respective manufacturers.

b) For a period of twenty-four (24) months, from the date of delivery of the Aircraft to Buyer, the Aircraft will be free from defects in materials, workmanship and manufacturing processes in relation to the exterior painting of the Aircraft.

c) For a period of twenty-four (24) months from the date of delivery of the Aircraft to Buyer, the Aircraft will be free from defects in design, manufacturing or installation of interior items installed in the cockpit or in the passenger cabin. This warranty coverage for interior items is in lieu of any warranty coverage described in paragraphs 10.1 (a)(i) and 10.1 (a)(ii) herein above.

10.2. The obligations of Embraer as expressed in this warranty are limited to:

a) Replacement or repair, at Embraer's sole discretion, of parts found to be defective within the specific periods stipulated in this certificate, provided such defective parts are returned to Embraer or to its representatives within a period of thirty (30) days after the occurrence of the defect. The costs of transportation, including but not limited to, industry standard package, freight, insurance, customs duties shall be borne by Buyer. Should the defective part not be returned to Embraer within such (30) day period, Embraer shall have the right, at its sole discretion, to deny the warranty claim.

NOTE: Notification of any defect claimed under this warranty must be given to Embraer within fifteen (15) days after such defect is found.

Parts supplied to Buyer as replacement for defective parts are warranted for the remaining warranty period of the original defective parts exchanged. However, freight, insurance, taxes and other costs eventually incurred during the shipment to Embraer or its representative are Buyer's responsibility. Delivery terms of the repaired and / or replacement parts will be

FCA/Memphis or Fort Lauderdale – USA, or FCA/Brussels - Belgium, or FCA/São José dos Campos - Brazil (Incoterms 2010), or as otherwise agreed between Embraer and Buyer in the Purchase Agreement.

b) Embraer shall reimburse to Buyer the labor costs required to remove any defective part from the Aircraft and its reinstallation in the Aircraft, as well as any removal and replacement as the result of improper installations by Embraer, not including the engines, Auxiliary Power Unit (APU) and their accessories ("Vendors Parts") provided that:

i. the work is performed by Embraer or by an Embraer authorized service center.

ii. the obligations of Embraer are limited to cover the labor expenses related to the repair or replacement of part(s) as mentioned above.

iii. Buyer informs Embraer by means of a written notice to be issued within fifteen (15) days after the occurrence of any defective part removal from the Aircraft, as well as its replacement or reinstallation, and the Embraer authorized service center where such event has taken place.

10.3. Embraer Warranty does not cover:

a) Indirect expenses such as, but not limited to freight, insurance, shipping, handling, custom taxes, surcharges, overtime, travel expenses, per diem, etc.

b) Routine services (such as, but not limited to, inspections, cleaning, adjustments, scheduled maintenance).

c) Labor expenses to remove and replace parts that deteriorate from wear and tear or inadequate exposure or labor expenses to remove and replace consumable items.

d) Any down-time expense that may be incurred due to the incorporation of any AD.

10.4. Embraer will accept no warranty claims under any of the circumstances listed below:

a) When the Aircraft has been used in an attempt to break records, or competition, or subjected to experimental flights, or in any other way not in conformity with the flight manual or the airworthiness certificate, or subjected to any manner of use in contravention of the applicable aerial navigation or other regulations and rules, issued or recommended by government authorities of whatever country in which the Aircraft is operated, when accepted and / or recommended by I.C.A.O. (International Civil Aviation Organization);

b) When the Aircraft or any of its parts have been altered or modified by Buyer, without prior written approval from Embraer and or from the manufacturer of the parts through a service bulletin;

c) Whenever the Aircraft or any of its parts have been involved in an accident, or when parts have been installed which are either defective or not complying to the manufacturer's design or specification;

d) Whenever parts have had their identification marks, designation, seal or serial number altered or removed;

e) In the event of negligence by the Buyer, misuse or maintenance services done on the Aircraft, or any of its parts not in accordance with the respective maintenance manual;

f) In cases of deterioration, wear and tear, breakage, damage or any other defect including those resulting from the use of inadequate packing methods when returning items to Embraer or its representatives.

g) In case that Buyer does not maintain complete records of operations and maintenance of the Aircraft and engines and fail to make those records available to Embraer for eventual inspection whenever deemed necessary by Embraer.

10.5. This warranty does not apply to Buyer furnished equipment or Buyer installed equipment, consumable items, and materials or parts subject to deterioration.

10.6. TO THE EXTENT PERMITED BY LAW, THE WARRANTIES, OBLIGATIONS AND LIABILITIES OF EMBRAER AND REMEDIES OF BUYER SET FORTH IN THIS LIMITED WARRANTY CERTIFICATE ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND BUYER HEREBY WAIVES, RELEASES AND RENOUNCES, ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES OF EMBRAER AND ANY ASSIGNEE OF EMBRAER AND ALL OTHER RIGHTS, CLAIMS AND REMEDIES OF BUYER AGAINST EMBRAER OR ANY ASSIGNEE OF EMBRAER, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WITH RESPECT TO ANY NON-CONFORMANCE OR DEFECT OR FAILURE OR ANY OTHER REASON IN ANY AIRCRAFT OR OTHER THING DELIVERED UNDER THE RELEVANT PURCHASE AGREEMENT OF WHICH THIS LIMITED WARRANTY IS CONTAINED AS AN ATTACHMENT, INCLUDING DATA, DOCUMENT, INFORMATION OR SERVICE, INCLUDING BUT NOT LIMITED TO:

a) ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE;

b) ANY IMPLIED WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE;

c) ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM THE NEGLIGENCE, STRICT LIABILITY OR OTHER RELATED CAUSES OF EMBRAER OR ANY ASSIGNEE OF EMBRAER, WHETHER ACTIVE, PASSIVE OR IMPUTED; AND

d) ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY FOR LOSS OF OR DAMAGE TO ANY AIRCRAFT, FOR LOSS OF USE, REVENUE OR PROFIT WITH RESPECT TO ANY AIRCRAFT OR FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

10.7. Any remaining term of this warranty can be transferred, except (i) to any of Embraer's competitors, any person or entity, with which the Parties may be legally restricted to enter into an agreement, to a debarred person or entity or in case such assignment would infringe US export control regulations or any other applicable law or (ii) as otherwise agreed between the Parties. Such assignment of remaining warranty will only be considered effective upon Embraer's receipt of a written notice from Buyer informing the new owner of the Aircraft.

10.8. No representative or employee of Embraer is authorized to establish any warranty other than the one hereby expressed to Buyer nor to assume or extend any additional obligations, relative to the matter in the name of Embraer and therefore any such statements eventually made by, or in the name of Embraer, shall be void and without effect.

11 Honeywell's Terms and Conditions for the Engines and Auxiliary Power Unit ("APU") Limited Warranty

EMBRAER DOES NOT WARRANT ENGINES AND APU.

Both engines warranty and APU warranty are to be provided to Buyer directly by Honeywell.

The terms and conditions below are for Buyers' information purpose only and they must be understood as a brief overview of the current general terms and conditions of the warranties provided by Honeywell. Other terms and conditions apply to the engines warranty and APU warranty.

The warranties terms and conditions provided by Honeywell shall prevail over any information presented herein.

11.1. Engines Limited Warranty:

11.1.1. Basic Conditions:

Honeywell warrants that at the time of the Aircraft delivery, the engines and its accessories manufactured by Honeywell will be free from defects in material and workmanship.

The warranty will be for a period of sixty (60) months or 3,000 flight hours, whichever occurs first, after the date of delivery of the Aircraft to Buyer. The remaining warranty is transferable to subsequent owners of the Aircraft other than Buyer subject to the provisions, limitations and exclusions of the warranty.

11.1.2. Coverage / Procedures:

During the warranty period Honeywell will, at its sole discretion, repair or replace any parts found to be defective. Such replacement may, at Honeywell's criteria, be made with new parts or serviceable parts.

Buyer is responsible for the costs of scheduled maintenance during the warranty period, including but not limited to, routine line maintenance and adjustments, hot section inspection and refurbishment, and engine overhaul. Removal of a part from service because of hourly, cyclic, normal wear and tear or other limitations on its continued use specified in Honeywell maintenance or service documents will not constitute a defect under this warranty.

Notice of a warranty defect must be provided to Honeywell within fifteen (15) days of the occurrence, and Honeywell reserves the right to refuse any claim received more than ninety (90) days after removal from operation of any engine or engine part.

11.1.3. Application:

The warranty for new Engines applies only to engines in non-military aircraft used for corporate or private transportation service (including Part 135 charter operations).

11.1.4. Buyer's Responsibilities:

Buyer is responsible for operating and maintaining the Engines in accordance with the applicable manuals and recommendations. All warranty repairs must be performed at a facility designated by Honeywell. Honeywell shall not be responsible for defects or damages, and the costs thereof, resulting from improper use or maintenance, normal wear and tear, accident, foreign object damage (FOD), erosion, corrosion, or any other cause beyond Honeywell's control.

11.1.5. Limitations:

THE WARRANTIES PROVIDED BY HONEYWELL ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO EXTENSION OF THE WARRANTY WILL BE BINDING UPON HONEYWELL UNLESS SET FORTH IN WRITING AND SIGNED BY HONEYWELL'S AUTHORIZED REPRESENTATIVE.

11.2. APU Limited Warranty:

11.2.1. Basic Conditions:

Honeywell warrants that at the time of the Aircraft delivery, the APU and its accessories manufactured by Honeywell and installed in the Aircraft will be free from defects in material and workmanship.

The warranty will be for a period of sixty (60) months, or 3,000 APU operating hours, whichever occurs first, after the date of delivery of the Aircraft to Buyer. The remaining warranty is transferable to subsequent owners of the Aircraft other than Buyer subject to the provisions, limitations and exclusions of the warranty.

11.2.2. Coverage / Procedures:

During the warranty period Honeywell will, at its sole discretion, repair or replace any parts found to be defective. Such replacement may, at Honeywell criteria, be made with new parts or serviceable parts.

Buyer is responsible for the costs of scheduled maintenance during the warranty period, including but not limited to, routine line maintenance and adjustments. Removal of a part from service because of hourly, cyclic, normal wear and tear or other limitations on its continued use specified in Honeywell maintenance or service documents will not constitute a defect under the warranty.

Notice of a warranty defect must be provided to Honeywell within fifteen (15) days of the occurrence, and Honeywell reserves the right to refuse any claim received more than ninety (90) days after removal from operation of the APU.

11.2.3. Application:

The warranty for new APU applies only to APU in non-military aircraft used for corporate or private transportation service (including Part 135 charter operations).

11.2.4. Buyer's Responsibilities:

Buyer is responsible for operating and maintaining the APU in accordance with the applicable manuals and recommendations. All warranty repairs must be performed at a facility designated by Honeywell. Honeywell shall not be responsible for defects or damages, and the costs thereof, resulting from improper use or maintenance, normal wear and tear, accident, foreign object damage (FOD), erosion, corrosion, or any other cause beyond Honeywell's control.

11.2.5. Limitations:

THE WARRANTIES PROVIDED BY HONEYWELL ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO EXTENSION OF THE WARRANTY WILL BE BINDING UPON HONEYWELL UNLESS SET FORTH IN WRITING AND SIGNED BY HONEYWELL'S AUTHORIZED REPRESENTATIVE.

12 Service Life Guarantee

12.1. If after the date of delivery of the Aircraft any defect or material breakage related to fatigue (the "Structural Defect") occurs in the primary structure of the Aircraft (the "Primary Structure", as defined below), while the relevant Aircraft is operated under normal flight operating conditions (as specified in the approved Aircraft Flight Manual or other applicable approved technical publications); then Embraer, subject to the provisions set forth below, shall provide at no charge to Buyer a design remedy and a corrective modification kit or replacement item (as determined by Embraer in its sole discretion) for such Structural Defects within 120 months or 10,000 FH, whichever occurs first.

The Primary Structure for the purpose of this Service Life Guarantee shall have the following assemblies:

a) Fuselage;
b) Wings, excluding the flight control surfaces;
c) Pylon;
d) Empennage, excluding flight controls surfaces.

12.2. Embraer shall not have any obligation to Buyer under this Service Life Guarantee to the extent that the Structural Defect results directly and primarily from:

a) Buyer failing to maintain, inspect or operate the Aircraft substantially as required by applicable maintenance manuals as amended from time to time or in accordance with the applicable airworthiness regulation then in force and the most recently updated Air Authority approved Operations and Aircraft Flight Manual.

b) Buyer operating the Aircraft in a manner which differs in any significant respect from normal business jet corporate operations.

c) Structural Defects having been caused directly and primarily by accidental or willful damage to the Aircraft, use of parts or repairs not approved by Embraer, hard landings as defined in the Buyer's Maintenance Program, violent evasive action or similar abnormal use of the Aircraft.

d) Buyer not having adequately trained personnel in structural inspection and detection techniques in Aircraft structures and components.

12.3. This Service Life Guarantee is applicable only to Structural Defects and shall not extend to any component in any structural item incorporated in the Aircraft if such components are stated in Embraer's Technical Publications to have a safe life of less than ten thousand (10,000) flight hours or ten (10) years, and is subject to written notification having been given to Embraer by Buyer of any claim hereunder within fifteen (15) working days of the determination by Buyer that said Structural Defects exists.

12.4. TO THE EXTENT PERMITED BY LAW, THE GUARANTEES, OBLIGATIONS AND LIABILITIES OF EMBRAER, AND REMEDIES OF BUYER SET FORTH IN THIS AIRCRAFT SERVICE LIFE GUARANTEE ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND BUYER HEREBY WAIVES, RELEASES AND RENOUNCES, ALL OTHER RIGHTS, CLAIMS, DAMAGES AND REMEDIES OF BUYER AGAINST EMBRAER OR ANY ASSIGNEE OF EMBRAER, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, SOLELY WITH RESPECT TO ANY GUARANTEED LEVEL OF AIRCRAFT SERVICE LIFE.

12.5. The terms and conditions of this Service Life Guarantee do not alter, modify or impair, in any way, the terms and conditions of Embraer's standard AIRCRAFT LIMITED WARRANTY CERTIFICATE contained in this TD.

This Service Life Guarantee is established only between Embraer and Buyer, as first Buyer, and it may not be assigned without the prior written consent of Embraer, which consent not to be unreasonable, withheld or delayed.

13 Intellectual Property Indemnification

13.1. Claims Against Buyer.

Subject to the limitations and conditions set forth herein, including, without limitation Article 13.2, Embraer shall indemnify Buyer with respect to all claims, lawsuits, and liabilities based upon or arising from any suit, action, proceeding, or allegation that:

Any product or service purchased from or supplied by Embraer hereunder or any portion thereof (collectively, for the purposes of this Article 13, “Item”) and/or the use or operation thereof constitutes an alleged or actual infringement of any granted or registered United States or foreign patent (“Patent Claim”), provided that from the time of design of such Item and until such Patent Claim is resolved, each of the countries in which the relevant patent is held and the flag country of the Aircraft is a party to (1) the Paris Convention for the Protection of Industrial Property as amended and (2) Article 27 of the Chicago Convention on International Civil Aviation of December 7, 1944, or

Aircraft software and accompanying documentation and manuals (collectively, for purposes of this Article 13, “Software”), or any part of such Aircraft Software furnished by Embraer, constitutes an alleged or actual infringement of any United States or foreign copyright rights or misappropriates any third party trade secret right under U.S. law or other foreign law (“Copyright Claim”), provided that from the time of design of such Software and until such Copyright Claim is resolved, each of the countries in which the infringement claim is made and the flag country of the Aircraft is a member of the Berne Convention for the Protection of Literary and Artistic Works as amended and both countries recognize Software as a “work” under the Berne Convention.

Embraer’s indemnification provided in this Article 13 shall not apply to Buyer furnished or installed equipment, Items or Software not installed, used or maintained in accordance with all instructions and procedures of Embraer (as may be modified by Embraer from time-to-time), any Buyer-furnished or requested designs or any Buyer modification of any Item or Software.

13.2. Limitations and Conditions

Buyer shall give prompt written notice to Embraer of the receipt of a notice of a suit or action against Buyer alleging a Patent Claim or Copyright Claim covered by this Article 13 or of a written notice alleging a Patent Claim or Copyright Claim covered by this Article 13, whichever occurs earlier. Failure to notify Embraer as provided herein shall relieve Embraer of liability that it may have to Buyer to the extent that the defense of any such Patent Claim or Copyright Claim is prejudiced thereby.

At all times, Embraer shall have the right, at its option and expense, to negotiate with any party alleging a Patent Claim or Copyright Claim, assume or control the defense to any allegation of a Patent Claim or Copyright Claim, including without limitation, the right to bring a declaratory judgment or similar action, intervene in any action involving a Patent Claim or Copyright Claim, and/or attempt to resolve a Patent Claim or Copyright Claim by replacing or modifying an Item or Software.

Buyer shall promptly furnish to Embraer all information, documents, records, and assistance within Buyer’s possession, custody or control as requested by Embraer that Embraer considers potentially relevant or material to any allegation covered by this Article 13. Buyer shall co-operate with Embraer and shall, upon Embraer’s reasonable request and at Embraer’s expense, arrange for the attendance of representatives of Buyer at depositions, hearings, trials, and the like, and assist in effecting settlements, securing and giving evidence, obtaining the attendance of witnesses and in the conduct of any suits or actions covered by this Article 13.

Buyer shall obtain Embraer's written approval prior to paying, agreeing to pay, assuming any obligation or making any material concession relative to any Patent Claim or Copyright Claim.

Embraer shall assume and pay any and all judgments and all costs assessed against Buyer in a final non-appealable judgment of any suit or action, and Embraer will make all payments in settlement imposed upon or incurred by Buyer with Embraer's prior approval, and Embraer shall also reimburse Buyer for all reasonable expenses (excluding, expressly, internal legal fees and internal technical and engineering fees) incurred by Buyer as a result of such suit or action. If in a final non-appealable judgment, Embraer is considered not liable for the alleged infringement due to the situations described in Article 13.2 above, Buyer shall reimburse Embraer for any and all costs and expenses incurred by Embraer as a result of such suit or action (excluding, expressly, internal legal fees and internal technical and engineering fees).

EMBRAER SHALL HAVE NO OBLIGATION OR LIABILITY UNDER THIS ARTICLE 13 FOR ANY LOSS OF USE, REVENUE OR PROFIT, OR FOR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE OBLIGATIONS AND REMEDIES OF BUYER SET FORTH IN THIS ARTICLE 13 ARE EXCLUSIVE AND IN SUBSTITUTION FOR, AND BUYER HEREBY WAIVES, RELEASES AND RENOUNCES, ALL OTHER INDEMNITIES, OBLIGATIONS AND LIABILITES OF EMBRAER AND ALL OTHER RIGHTS, CLAIMS AND REMEDIES OF BUYER AGAINST EMBRAER, EITHER EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WITH RESPECT TO ANY ACTUAL OR ALLEGED INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT BY ANY PRODUCT OR SERVICE PROVIDED UNDER THIS AGREEMENT.

14 Technical Publications

Embraer shall supply, at no additional charge to Buyer, in the English language, one (1) complete set of operational and maintenance manuals and publications in electronic format (at MyTechCare website or any other website equivalent or substitute, as available and at Embraer's discretion).

Embraer shall also supply an additional hard copy of some operational manuals according to the operational requirements on board each aircraft. Such publications are to be issued under the applicable specification.

The revision service for these publications (electronic format and hard copy), including mailing services (except for air cargo shipping) shall be provided, at no additional charge for the first year after the delivery of each copy and subsequently at a nominal fee. After such period, the mailing services shall also be borne by Buyer.

Such publications will be available at Aircraft delivery, subject to Customer enrollment in the MyTechCare website (or any other website equivalent or substitute) and the correspondent electronic acceptance of its GTU - General Terms of Use.

The Parties further understand and agree that in the event Buyer elects not to take all or any one of the publications above mentioned, or revisions thereof, no refund or other financial adjustment of the Aircraft price will be made.

15 Familiarization Program

15.1. Embraer will provide or have provided by Embraer's designated training providers ("TP"), per aircraft, training for: (i) 2 (two) Buyer's pilots, including a ground school course and simulator sessions in a full flight simulator level D; and (ii) 2 (two) mechanics, aiming at familiarization with (a) airframe & powerplant course or (b) electrics & avionics course, at the option of Buyer; all such training to be provided in accordance with ANAC, EASA or FAA regulations, as the case may be, and in conformity with the syllabi of the training program to be developed by Embraer and/or TP (the "Familiarization Program").

15.2. Pilot(s) and mechanic(s) designated by Buyer to participate in the Familiarization Program ("Trainee") shall (i) be duly qualified and/or authorized by the relevant Airworthiness Authority in the country of Buyer's operation and, in the case of pilots, as pilot in a twin-engined jet or turbo prop airplane and have previous command experience; (ii) meet the minimum requirements described in the syllabi; (iii) hold ICAO language proficiency level 4 in English; (iv) be cleared for and approved for export control purposes, upon having been screened, against the against the U.S. and other government list of restricted or prohibited persons, including, but not limited to: U.S. Office of Foreign Assets Control list of Specially Designated Nationals and Blocked Persons, U.S. Bureau of Industry and Security ("BIS") Entity List, BIS List of Denied Persons, BIS Unverified List, U.S. Directorate of Defense Trade Controls list of Debarred Parties.

15.3. The Familiarization Program shall be provided at the designated training center as Embraer and/or TP may reasonably determine.

15.4. The Familiarization Program shall commence prior to the Actual Delivery Date of the Aircraft, provided that booking and reservation thereof is subject to: (i) Embraer's or TP's availability; and (ii) fulfillment of the following conditions precedent:

15.4.1. Commencement of the Familiarization Program shall occur no earlier than 90 (ninety) days prior to the Actual Delivery Date of the Aircraft, and shall be concluded by the twelfth (12th) month following the Actual Delivery Date of the Aircraft; in case Buyer does not conclude the Familiarization Program in the period above mentioned, Buyer shall be deemed to have fully waived its rights to such training, no refund or compensation being due by Embraer to Buyer in such case;

15.4.2. Request of training by Buyer must have been delivered in writing to Embraer no less than 120 (one hundred twenty) days before Buyer's intended training commencement; and

15.4.3. Delivery, by Buyer, of written notice to Embraer informing Trainees' full name, nationality(ies) and professional identification data no less than 45 (forty-five) days before Buyer´s intended training commencement, no Trainees' substitution permitted.

15.4.4. Buyer may request reschedule or cancellation of a confirmed training by delivering written notice thereof to Embraer at least 45 (forty-five) days prior to the date of training commencement. Rescheduling shall be subject to provisions of Article 15.4.2, above.

15.5. Buyer shall be responsible for:

15.5.1. Travel, board and lodging expenses of Buyer's Trainees;

15.5.2. Costs and expenses related to activities pertinent to the Familiarization Program carried out of the location designated by Embraer or TP, including without limitation, Embraer's or TP's personnel non-productive days, round trip air fare tickets, local transportation (including necessary insurance coverage), hotel accommodations (three stars minimum, breakfast included), and a per diem rate;

15.5.3. Compensation accruing against Embraer due to rescheduling or cancellation of a confirmed training in non-compliance with Article 15.4.3;

15.5.4. Preparation and submission of the relevant training program to the Airworthiness Authority, and obtaining of such approval;

15.5.5. Costs and expenses related to support from Embraer or TP related to (i) customization and/or modification of the Familiarization Program and (ii) development of Buyer´s own training program due to Airworthiness Authority's or Buyer's request; and

15.5.6. Familiarization of Embraer's or TP's instructors with Buyer's training program as may be customized by Buyer.

15.6. Trainees shall be allowed exclusively to those areas permitted by Embraer and/or TP and Buyer agrees to hold Embraer harmless from and against all and any kind of liability in respect of such Trainees acts, omissions or behavior.

15.7. NEITHER EMBRAER NOR ITS TP WILL BE RESPONSIBLE FOR THE COMPETENCY OF TRAINEES WHO MAY RECEIVE TRAINING PURSUANT TO THE FAMILIARIZATION PROGRAM OR FOR THE OPERATION OR SERVICING OF ANY AIRCRAFT BY TRAINEES AFTER COMPLETION OF SUCH FAMILIARIZATION PROGRAM. EMBRAER AND/OR TP GIVE NO WARRANTY THAT ANY PERSON RECEIVING TRAINING PURSUANT TO THE FAMILIARIZATION PROGRAM WILL ACHIEVE THE NECESSARY PROFICIENCY TO QUALIFY FOR ANY LICENSE, CERTIFICATE OR RATING ISSUED BY ANY REGULATORY AGENCY OR GOVERNMENT AUTHORITY. EMBRAER AND/OR TP SHALL NOT BE RESPONSIBLE FOR ANY MINIMUM LEVEL OF ASSIMILATION OF INFORMATION PASSED ON TO TRAINEES DURING THE FAMILIARIZATION PROGRAM.

16 Embraer Maintenance Tracking & Planning Service

Buyer is entitled to receive maintenance tracking services exclusively through Embraer preferred maintenance tracking provider, upon execution of a specific agreement by such Provider and the Buyer at no additional charge to Buyer for one (1) year from the date of the signature of such agreement.

The service is provided directly by CAMP Systems upon Embraer referral and currently offers Internet-based software to manage Aircraft maintenance tracking requirements according to applicable regulations.

Services coverage, system features and functionalities available to Buyer shall be presented directly by CAMP upon Buyer's request. Buyer acknowledges that Embraer will share with CAMP. Buyer's commercial data and Aircraft delivery documentation to allow CAMP to contact Buyer for start-up procedures.

17 MyTechCare

Buyer will have access to the website www.techcare.embraer.com or any other site equivalent or substitute upon the execution of a license agreement by the Parties, at no additional charge to Buyer for the first year after the delivery of the Aircraft and subsequently at a nominal fee. The standard package of e-services provided through MyTechCare will ease communication between customer facilities or service centers with Embraer for supporting activities. It will also permit the access to the technical publications and content related to flight operations.