

**PHENOM<sup>®</sup>**  
BY EMBRAER

**← EMBRAER**  
*Executive Jets*



# PROGRESS REPORT

---



SEPTEMBER 2007 – VOLUME 2 – ISSUE 7

- From the Desk of Luís Carlos Affonso
- The Phenom Programs
- The Phenom 100 Program
- The Phenom 300 Program

## From the desk of Luís Carlos Affonso

---



Luís Carlos Affonso, Embraer Executive Vice-President, Executive Jets

The Phenom 100's first flight was indeed a crowning achievement, but the greatest goal we seek is to begin to deliver this jet to each customer.

The first Phenom 100 made its first public appearance on August 11<sup>th</sup>, at the Latin America Business Aviation Conference & Exhibition 2007 (LABACE), held in São Paulo, Brazil.

The Phenom 300 has also been making remarkable progress, having begun sub-assembly.

Enjoy the news!

Luís Carlos Affonso

## The Phenom Programs

---

Announced in May 2005, the Phenom 100 performed its first flight in July 2007 and the Phenom 300 is scheduled for first flight in mid-2008. The jets are expected to entry into service in mid-2008 and mid-2009, respectively.

The Phenom jets are clean-slate designs, envisioned to offer premium comfort, outstanding performance and low operating cost. Embraer has partnered with renowned aviation industry leaders to manufacture and support the Phenom 100 and Phenom 300.



Frederico Fleury Curado, Embraer's CEO, and Luís Carlos Affonso present the Phenom 100 to the public at LABACE 2007

## The Phenom 100 Program

---

### Flight Test Campaign

Flight Test Campaign begins - The Phenom 100 first flight on July 26th marked the beginning of the flight test campaign. Tests are being conducted at the Gavião Peixoto facility, with a five-kilometer (3.12 miles) runway exclusively for ground and flight tests.

Flight Test Campaign Fleet - The Phenom 100 flight test campaign will comprise a fleet of four aircraft, which will accumulate about 1,800 flight hours, being 600 hours for the maturity campaign. The second and third aircraft assemblies are firmly advancing in São José dos Campos and Botucatu, respectively.



First Phenom 100 in flight



The first Phenom 100 at the Gavião Peixoto test facility

Performance Tests - The second Phenom 100, as the first one, is fully instrumented and will undergo tests to confirm flight qualities, stall procedures, high-speed characteristics, and general performance. The third and fourth test jets will receive the production-type interior and will be submitted to internal noise analyses, air conditioning tests, among other assessments.

Maturity Campaign – Innovatively, the Phenom 100 Test Campaign will have a fully dedicated jet for the specific purpose of confirming the interior design and comfort specifications, as well as aircraft reliability. More than 600 hours will be applied to this maturity campaign.

## The Phenom 100 Program - *continued*

---

### Flight Test Campaign

In-Flight tests – By mid-September, the first Phenom 100 had completed more than 50 flight hours in 39 flights. One of the most recent tests evaluated the air conditioning and pressurization systems during flight.

Certification tests - The jet is currently performing tests to open the operational envelope and fulfill requirements for the certification campaign.

### The Second Phenom 100



The second Phenom 100 during ground tests



The second Phenom 100 in final assembly

Final Assembly – The second Phenom 100 has already concluded final assembly and is now submitted to systems analyses and ground tests preceding the jet's upcoming first flight.

Second Phenom 100 Tests - The jet will soon join the flight test campaign to confirm mainly systems functionality, In-Flight Thrust Determination (IFTD), and to perform flutter tests. In addition, the jet will conduct ground vibration tests.

## The Phenom 300 Program

### Sub-assembly

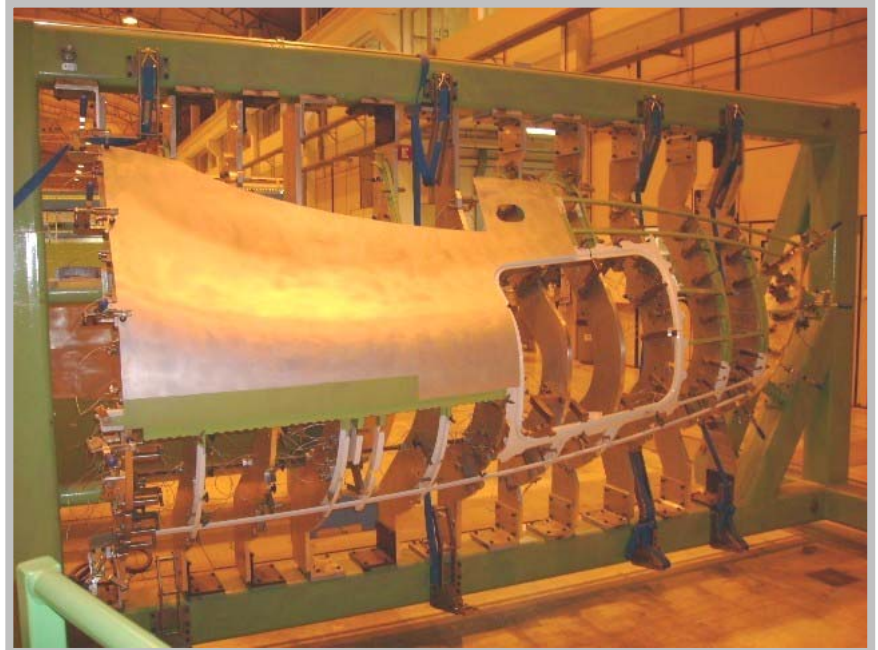
**Manufacturing** – After a full-scale mock-up of the Phenom 300 was showcased at LABACE 2007 and at Athina Onassis International Horse Show - both held in São Paulo, Brazil – the program reached the mark of more than 2,000 parts produced. In addition, around 6,300 drawings have already been released by engineering to manufacturing planning.



The Phenom 300 mock-up:  
To be showcased at NBAA 2007, booth #3737



Rear fuselage sub-assembly



Phenom 300 rear fuselage sub-assembly in Botucatu

**Sub-assembly** - August 15<sup>th</sup> marked the beginning of the Phenom 300's sub-assembly process in Botucatu, where the rear fuselage is currently being built.

**Manufacturing** – The forward fuselage assembly tooling is in production and the central one is ready for sub-assembly to begin.

**Engine run** – Meanwhile, the Phenom 300 engine PW535E ran for the first time last month, on a test cell, at Pratt & Whitney Canada.



Phenom 300 central fuselage assembly jig