

**PHENOM**<sup>®</sup>  
BY EMBRAER

**EMBRAER**  
*Executive Jets*



# PROGRESS REPORT

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## From the desk of Luís Carlos Affonso

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When we committed to developing the Phenom 100 and Phenom 300 back in 2005, we undertook this project determined to deliver revolutionary jets. We continue focused on this objective as we now approach the Phenom 100 entry into service. Over 1,100 flight test hours have been performed and the first Phenom 100 aircraft to be delivered to customers this year are already in the sub-assembly production phase. Upon the jet's entry into service, customers will count on a fully prepared service center network and highly qualified maintenance personnel, ready to provide full support.

Following the same steady pace of the Phenom 100 program, the Phenom 300 flight test campaign is already being conducted with two aircraft and two more to join them soon.

Enjoy the good news!

## The Phenom Programs

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Announced in May 2005, the Phenom 100 performed its first flight in July 2007 and four aircraft are currently in the Flight Test campaign. The Phenom 300 flew for the first time in April 2008. The jets are expected to enter into service in the second half of 2008 and in the second half of 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.



Second Phenom 300 first flight

## The Phenom 100 Program

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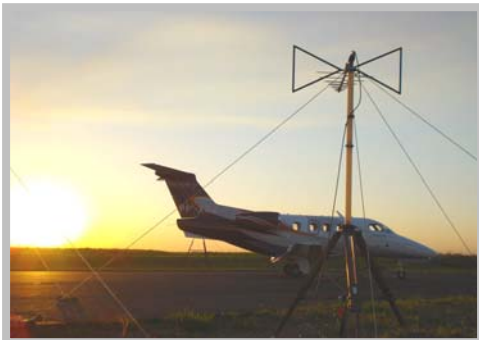
### Certification

**Campaigns** – To date, the four Phenom 100 jets have concluded more than 1,100 hours in flight tests and the certification campaign is drawing to a close. Meanwhile, the first Phenom 100 aircraft to be delivered to customers this year are already in the sub-assembly production phase.

**Tests** – Several development and certification flight tests have been performed to date, such as low- and high-speed characteristics, stalls, flutter, and natural ice conditions, which will allow the aircraft to be certified for flying into known icing conditions, when it enters service later this year. Crosswind tests were held in Punta Arenas, Chile, earlier this year, and operational tests in high altitude airports were recently concluded in Cochabamba, Bolivia. One test aircraft has just come back from the south of Argentina, where it was performing cold weather tests.



Phenom 100 sub assembly at Botucatu facility



High Intensity Radio Frequency test  
Gavião Peixoto, Brazil



Phenom 100 Cold Weather campaign  
Bariloche, Argentina



Phenom 100 Cold Weather campaign - Bariloche, Argentina

Ground evaluations included ground vibration, lightning, HIRF (High Intensity Radio Frequency) and cold soak, the latter completed last April at the McKinley Climatic Laboratory at Eglin Air Force Base, in Florida, USA. All structural static tests have also been concluded, while the primary structure components made of composite materials have completed both fatigue and static certification tests.

## The Phenom 100 Program - *continued*

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### Certification

**The certification process** – The main goal of the aeronautics certification process is to guarantee safety. Regional and international authorities establish a series of rules or guidelines for this objective, which are followed by manufacturers throughout aircraft development. All the procedures are followed closely by authorities and their assigned representatives within manufacturers.

Embraer starts working on certification from the preliminary design. All aircraft are built based on the most strict safety rules, applying the latest technologies. As the first airplane is assembled, specialized engineers start gathering data about the jet's functions, qualities, endurance, etc., through a series of tests conducted on ground and in flight. The evaluations aim at proving that all requirements were accomplished.

The aircraft and its systems are not the only focus of the certification process. While tests are performed, Embraer conducts pilot and mechanic trainings; develops operations and maintenance manuals, aside from supporting customers as they prepare for their specific type of operation.

In early August, the joint venture Embraer CAE Training Services (ECTS) began the training program for mechanics, maintenance technicians and engineers of the Phenom authorized services center network. Embraer and CAE worked together to ensure that the Phenom 100 technical training program, which utilizes instructor-led computer based training, met customer needs. Thirty representatives of service centers are attending training classes to last approximately 30 days. Besides in-depth classroom instructions, some web-based lessons have been offered, as these add more flexibility and convenience to maintenance professionals. Courses may take place either at CAE's training center in Dallas or on-site at customer facilities



Moments of the Phenom 100  
certification campaign

## The Phenom 300 Program

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### Latest advances



Second Phenom 300 flying over Brazil



Second Phenom 300 – moments before the flight

**Second Phenom 300 flies** – Embraer saw its second Phenom 300 light jet, registration PP-XVJ, take flight last August 5, departing from Embraer's test runway, the longest in South America, at the Gavião Peixoto plant. The crew consisted of Capt. Jeirgem Prust, Capt. John Sevalho Corção, and flight test engineer Leandro Bigarella. Before its maiden flight, the aircraft was tested for several hours, accomplishing, among others, the electrical power-on check, engine run, and systems integration evaluations.

**Tests** – A few days after the flight, the second Phenom 300 performed the landing gear spray, external noise and natural stall evaluations, which were all concluded with positive results.



Phenom 300 tests – landing gear spray

## The Phenom 300 Program - *continued*

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First public appearance

**Phenom 300 debut** – Embraer showcased the Phenom 300 aircraft for the first time. The debut event occurred at Latin America Business Aviation Conference & Exhibition, in Brazil, on August 14. The attendees were welcomed in front of the Company's booth by Luís Carlos Affonso, Breno Corrêa – Vice President Marketing and Sales Latin America Executive Jets – and Mr. Rogerio Elian, ABC Táxi Aéreo President, who will be the first Brazilian customer to take delivery of the jet.

**World acceptance** – Also during Labace, Embraer disclosed to have received over 800 Phenom firm orders to date, being about two thirds of Phenom 100 and one third of Phenom 300.



Left to right – Breno Corrêa, Luís Carlos Affonso, Mr. Rogerio Elian



The Phenom 300 in its first public appearance alongside the Legacy 600  
Labace 2008