The first full test flight of Boeing's long-awaited 787 Dreamliner is scheduled to take place this Tuesday (December 15) following the completion of successful static and functional tests by the aircraft manufacturer.

Scott Fancher, Vice President and General Manager of the 787 programme said: ‘I am happy to report that the programme has validated the airplane structure for the 787 Dreamliner. We are very pleased with the results of this final functional testing. With the successful completion of static testing and this functional testing, our focus now moves to first flight.’

During the testing on the 787 Dreamliner static test airframe, the wing and trailing edges of the air frame were subjected to their limit load – the highest loads expected to be seen in service. The limit-load test was required to clear the airplane for first flight. Boeing says the test strategy is to conduct all limit-load tests and analyze data before conducting the ultimate load series, which is required for certification and will be conducted next year.

Boeing announced on June 23 that it was necessary to reinforce an area of structure at the side-of-body section of the 787, but this work has now been completed.

The 787 Dreamliner has been subject to a series of delays and it is now almost two years behind schedule. However, Boeing says it is optimistic that it will be able to deliver the first plane by the end of 2010.