

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Launch Vehicles in Service or in Development (1)

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## ARIANE 5 PROGRAM STATUS

**Abstract**

In 2010, according to its prediction, Arianespace launched 6 Ariane 5 ECA and placed in GTO 12 telecommunication satellites, thus confirming its capability to deliver a steady and reliable service to commercial customers. On 16 February 2011, still according to a manifest established six months earlier, the ATV2 Johannes Kepler was successfully launched on the 200th Ariane launcher illustrating the successful European policy of a guaranteed access to space for European governments thanks to effective launch service solutions.

The paper will present an overview of the results of these recent Ariane 5 flights. It will detail the lessons learnt from these launches, the evolution of Ariane 5 exploitation dashboard and ongoing Ariane complementary development activities managed by ESA. In particular, the 201st Ariane launch will take benefit of the performance increase program with, for the first time in Ariane history, a performance larger than 10 tons to GTO.

While focusing on Ariane 5 activities, the paper will present the status of the European family of launchers which will become a reality in 2011 with the preparation of Soyuz and Vega first launches from CSG.

**1. Recent flights results and perspectives**

4 Ariane 5 have been launched in the last quarter of 2010 and the second ATV on 16 February 2011. These launches make 42 successful Ariane 5 flights in a row, including 28 Ariane 5 ECA. The current objective for 2011 is set to 12 launches: 6 Ariane 5 (1 ES and 5 ECA), 3 Soyuz from Baikonur, 2 from CSG and the Vega maiden flight.

**2. Program status**

Arianespace technical policy remains to consolidate Ariane 5 production. This is controlled and achieved through quality audits and production indicators whose trends will be presented. In the same time, Vega production program has begun which will be consolidated in an equivalent way.

The Ariane 5 complementary development programs are in progress with a visible consequence this year on performance with more than 20 tons to the ISS and more than 10 tons to GTO.

**3. Arianespace takes care of the environment**

On top of the new French regulation requiring space debris mitigation, Arianespace has developed a process to assess and manage the environmental impact of its activity. This environmental friendly approach is shared with ESA and CNES for development aspects in order to characterize the present situation and to issue adequate requirements for the next generations of launchers.