

10:05:32

#### SCRIPT : ARIANE 5

Ariane 5 is Europe's launcher to meet the challenges of the new century. It can launch the largest of today's satellites and will even orbit vehicles weighing 20 tons onto servicing missions to the International Space Station. At the same time, the launch cost with Ariane 5 are cheaper than with its predecessors whilst maintaining a high reliability.

Today, satellites offer manyfold services that range from broadcasting thousands of television programmes to more secure air traffic control, and from taking accurate weather pictures to global mobile communications. All these services are now taken for granted but none of them would exist if there were no launchers capable of placing satellites accurately into space. Every nation that wants to play a role in the worldwide space business indeed needs its own access to space -- it needs a launch system.

Nearly a quarter of a century ago, the European Space Agency (ESA) sent the first Ariane-1 into space: a launch vehicle designed, developed and manufactured in Europe, by ESA and its partners, which are the French Space Agency CNES and the Arianespace company for marketing and operations, all working together with over 50 space companies from 11 European countries.

Since then, European launchers have progressively improved thanks to a steady development effort from Ariane 1 to Ariane 4 and a completely new generation Ariane 5 was developed during the nineties. In 2002, Ariane 5 will gradually take over as the workhorse of the Ariane family, and the last Ariane 4 launches in a long series are now being scheduled.

Ariane 5's first successful launch took place on 30 October 1997, and its first commercial mission two years later, in December 1999, when it launched ESA's X-ray observatory, XMM/Newton.

Ariane 5 is a completely new launch vehicle, which just like Ariane 1 twenty years ago, took time, efforts and some setbacks until it proved reliable and economic. Now, after 8 successful launches of communications, Earth observation and scientific satellites into various orbits, Ariane 5 has left its mark on the commercial launch vehicle map and it enjoys a solid backlog of commercial orders from around the globe.

For Ariane 5, ESA built a new launch site at Europe's spaceport in Kourou plus facilities to produce the solid boosters, and to prepare the satellites for launch.

The fact that Ariane-5 is a completely new launcher also means it is not the end but the starting point of further improvements. More powerful propulsion systems and versatile upper stages will adapt Ariane 5 for a variety of missions. An added benefit is that future Ariane-5 launchers will be manoeuvrable and can even be used for combined missions to send satellites into different orbits.

The next major improved version of Ariane 5 is planned to be launched in middle of this year, when a more powerful cryogenic main stage and a new cryogenic upperstage (using

the same engine as the 3<sup>rd</sup> stage of Ariane 4) will increase the launcher's performance. This Ariane 5 version ECA lift payloads weighing up to 9.5 tonnes into geostationary transfer orbit, compared to 5.8 tonnes today.

In 2006, the most powerful of the Ariane-5 launchers (version ECB) will become available. Its completely new upper stage will carry 25 tonnes of liquid oxygen and liquid hydrogen to feed the new, more powerful Vinci engine. This version of Ariane 5 will also be able to carry out multiple restarts in flight and to put 12 tonnes into geostationary transfer orbit.

In four years, the payload capability of Ariane 5 will more than double, but not its price. Thanks to better prices for putting one kilogramme of payload into orbit, Arianespace, and Europe with it, should be in a good position to maintain a leading position in the world-wide commercial launch market.

#### **B-ROLL SHOTLIST**

<b>10:05:32</b>	<b>Ariane 5 Launches</b>
<b>10:07:02</b>	<b>Ariane 5 construction</b>
<b>10:08:36</b>	<b>Ariane 5 Graphics</b>
<b>10:10:09</b>	<b>Ariane 5 Payloads (ATV, Enivsat)</b>
<b>10:11:15</b>	<b>CSG, Kourou, French Guiana</b>
<b>10:11:47</b>	<b>Ariane 1 Launch</b>
<b>10:12:07</b>	<b>Ariane 4 Launch</b>
<b>10:12:21</b>	<b>Ariane Family</b>
<b>10:12:45</b>	<b>END</b>