

Ariane 5 - second launch of 2008

April 21 2008



Ariane 5 ECA launcher clears the launch tower at Europe's Spaceport in Kourou, French Guiana. Credits: 2007 - ESA/CNES/ARIANESPACE/Photo Optique Video du CSG

Yesterday evening, an Ariane 5 ECA launcher lifted off from Europe's Spaceport in French Guiana on its mission to place two telecommunications satellites into geostationary transfer orbits.

Lift-off of flight V182 took place at 00:17 CEST/Paris on 19 April (22:17 UTC/GMT; 19:17 UTC-3/Kourou on 18 April). The satellites were accurately injected into the correct transfer orbits about 30 minutes later.

The payload comprised Star One C2 - a telecommunications, multimedia and Internet satellite that will serve South America - and Vinasat-1 - Vietnam's first telecommunications satellite. The payload mass was 7762 kg; the satellite masses totalled 6737 kg, with payload adapters and dispensers making up the additional 1025 kg.

This second launch of the year keeps Arianespace and Europe's Spaceport on target for the seven missions planned for 2008. Payload preparations and launcher assembly for the next flight are already under way.

Flight timeline

The Ariane 5's cryogenic, liquid fuelled main engine was ignited first. Seven seconds later, the solid fuel rocket boosters were also fired, and a fraction of a second after that, the launch vehicle lifted off.

The solid boosters were jettisoned 2 min: 20 sec after main engine ignition, and the fairing protecting the payload during the climb through the Earth's atmosphere was discarded at 3 min: 09 sec. The launcher's main engine was shut down at 8 min: 55 sec; six seconds later the main cryogenic stage separated from the upper stage and its payload.

Four seconds after main stage separation, the engine of the launcher's cryogenic upper stage was ignited to continue the journey. The upper stage engine was shut down at 24 min: 41 sec into the flight, at which point the launch vehicle was travelling at 9408 metres-per-second (almost 34 000 km/h) at an altitude of 588 kilometres and the conditions for geostationary transfer orbit injection had been achieved.

At 26 min: 06 sec after main engine ignition, Star One C2 separated from the launcher, followed by Vinasat-1 at 30 min: 57 sec.

Ariane 5 ECA V183 is approaching completion in the Launcher Integration Building and will shortly be moved to the Final Assembly Building, recently vacated by the rollout of V182. Skynet 5C and Turksat 3A have arrived at the spaceport and are being prepared for integration with the launcher.

Ariane 5 ECA is the latest version of the Ariane 5 launcher. It is designed to place payloads weighing up to 9.6 tonnes into geostationary transfer orbit. With its increased capacity Ariane 5 ECA can handle dual launches of very large satellites.

Source: ESA

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