

Ariane 5's third launch of 2011

May 23 2011



On 20 May 2011, an Ariane 5 launcher lifted off from Europe's Spaceport in French Guiana on its mission to place two telecommunications satellites, GSAT-8 and ST-2, into their planned transfer orbits. Flight VA202 was the third Ariane 5 launch of 2011. Liftoff of the 58th Ariane 5 mission came at 22:38 CEST (20:38 GMT; 17:38 French Guiana). Credits: ESA / CNES / Arianespace / Photo Optique vidéo du CSG - S. Martin

An Ariane 5 launcher lifted off this evening from Europe's Spaceport in French Guiana on its mission to place two telecommunications satellites, ST-2 and GSAT-8, into their planned transfer orbits. Flight VA202 was the third Ariane 5 launch of 2011.

Liftoff of the 58th Ariane 5 mission came at 22:38 CEST (20:38 GMT; 17:38 French Guiana). The target injection orbit had a perigee altitude of 249 km, an apogee altitude at injection of 35 947 km and an inclination of 2.5°.

The satellites were accurately injected into their transfer orbits about 27 minutes and 31 minutes after liftoff, respectively.

ST-2 will be positioned above the equator at 88°E. It will provide Internet-based fixed and mobile, voice and data transmission satellite services to businesses, in particular direct broadcast TV operators and maritime companies in Asia and the Middle East.

GSAT-8, to be positioned over 55°E, will provide mainly direct-to-home TV broadcast and radionavigation services to the Indian subcontinent.

The payload mass for this launch was 9013 kg; the satellites totalled 8190 kg, with payload adapters and dispensers making up the additional 823 kg.

VA202 flight timeline

The Ariane 5's cryogenic, liquid-propellant [main engine](#) was ignited first. Seven seconds later, the solid-propellant boosters also fired, and the vehicle lifted off a fraction of a second later.

The solid boosters were jettisoned 2 min 21 sec after main [engine ignition](#), and the fairing protecting the payload during the climb through Earth's atmosphere was discarded at 3 min 09 sec.

The [launcher](#)'s main engine was shut down at 8 min 54 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 cryogenic upper stage was ignited to continue the journey. The engine was shut down at 24 min 51 sec into the flight, at which point the vehicle was travelling at 9350 m/s (33 660 km/h) at an altitude of 658.4 km. The conditions for geostationary transfer orbit injection had been achieved.

At 27 min 08 sec after main engine ignition, ST-2 separated from the [upper stage](#), followed by GSAT-8 at 31 min 17 sec. [Ariane 5](#)'s flight operations were completed 46 min 08 sec after main engine ignition.

Provided by European Space Agency

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