

Ariane 5 G

Launch vehicle	Ariane 5 G
Launch site	Guiana Space Center, Kourou, French Guiana
Date/Time	2001-07-12 21:58
Description	Second stage partial failure
Cause	n/a (possibly propellant leak)
Payload	BSAT 2b (Television satellite, BSAT, Japan) Artemis (Experimental telecommunications satellite, European Space Agency)
Desired orbit	Geostationary transfer orbit

First indications were that a propulsion anomaly of the Astrium-made storable propellant second stage that occurred in the beginning of its propulsive phase has caused the lower than expected orbit. The first stages (core stage and the solid boosters) performed under nominal conditions.

Jean-Marie Luton, Chairman and CEO of Arianespace, at a press conference confirmed the orbital parameters after Flight 142: 17,528 km apogee, 592 km perigee and 2.9 degrees inclination for a targeted orbit of 35,853 km apogee, 858 km perigee and 2 degrees inclination.

According to Arianespace, a propulsion anomaly of the storable propellant second stage (EPS) that occurred in the beginning of its propulsive phase has caused this lower than expected orbit.

Ariane 5's upper stage uses MMH fuel and N₂O₄ oxidiser that are fed from pressurised tanks to its Aestus engine, which in this case delivered only about 80 percent of the necessary thrust. Luton: "The navigational system made corrections to compensate, but was unable to overcome the loss of velocity, which was 50 metres per second less than scheduled."

There was some speculation that the performance shortfall could have been caused by a propellant leak.

Ironically, Artemis was originally slated for launch atop the first Japanese H-2A rocket but ESA opted to pull the satellite off the untested booster in favour of flying it on the Ariane 5. The H-2A maiden flight, carrying a test satellite, was successful.

- [Ariane 5 ECA \(2002-12-11\)](#)
- [Ariane 5 G \(1997-10-30\)](#)
- [Ariane 5 G \(1996-06-04\)](#)

[Launch Failures Chronology](#)