

Image: First contact with Ariane 5

March 11 2016



Credit: D. Hamilton

Ariane 5 flight VA229 lifted off yesterday morning at 05:20 GMT (02:20 local time, 06:20 CET) from Europe's Spaceport in Kourou, French Guiana, to deliver a telecom satellite into geostationary orbit.

Just 40 minutes later, in its first operational usage, ESA's new 4.5 m-

diameter antenna located in Western Australia swung into action, acquiring signals from the launcher arcing high overhead, delivering Eutelsat-65 West A into its planned transfer orbit.

The antenna, installed in 2015 and inaugurated last month, maintained a link until the rocket flew out of visibility at a range of about 22 000 km some 80 minutes later.

The small antenna was used to 'slave' point ESA's much larger 35 m-diameter antenna, both at the New Norcia ground station, which could also then acquire telemetry from Ariane.

Yesterday's tracking support was the first operational usage of the antenna and demonstrated its full capabilities in a crucial, realtime assignment.

"The antenna had previously 'shadow' tracked LISA Pathfinder in December 2015, but that was only to test its new systems, while another ground station was simultaneously available to take over if any problems had arisen," says ground station engineer Peter Droll.

"This time, there was no back-up, so everything had to work perfectly, and it did."

The new [antenna](#) will be used for tracking rockets and communicating with newly launched satellites, taking advantage of the ideal location under the flight paths of launchers departing from Kourou.

Its advanced technology allows it to quickly and precisely lock onto and track satellites during their critical first orbits, up to roughly 100 000 km out, as well as Europe's Ariane 5, Vega and Soyuz rockets.

Provided by European Space Agency

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