

Ariane rocket to hoist Europe-Japan Mercury mission

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An Ariane-5 rocket blasts off on August 6 from the European space centre at Kourou, French Guiana. An unmanned European-Japanese mission to Mercury will be launched by Ariane 5 rocket in July 2014 under a contract announced by Arianespace.

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The BepiColombo mission, named after a 20th-century Italian mathematician who studied the rotation of [Mercury](#), comprises two probes that will enter orbit around the closest planet to the Sun after a six-year trek.

The rocket for the 4.4-tonne payload will be a heavy-lift Ariane 5 ECA,

hoisted from the [European Space Agency](#) (ESA) base in Kourou, French Guiana, the European launch operator said in a press release.

The partners in the mission are ESA, providing the Mercury Planetary Orbiter, and the Japan Aerospace Exploration Agency ([JAXA](#)), whose contribution is the Mercury Magnetospheric Orbiter.

Mercury is listed in ESA's "cornerstone" investigations of the Solar System, which include the ongoing missions to Mars and Venus, as well as the [Huygens probe](#), which was sent down to the Saturnian moon of Titan in January 2005 by the US spacecraft Cassini.

BepiColombo will use slow-but-steady solar propulsion and gravitational boosts from swings around Earth, Venus and Mercury itself to arrive at its destination in 2020.

The two orbiters will carry instruments to explore Mercury's crater-pocked surface, its magnetic field and thin vestigial atmosphere. Because of budgetary constraints, plans to add a small lander, the Mercury Surface Element (MSE), have been scrapped.

Mercury is one of the most enigmatic planets of the Solar System.

Temperatures reach 425 degrees Celsius (800 degrees Fahrenheit) during the day but plummet to -100 C (-150 F) at night.

Even though the planet is relatively close to Earth, it has been little explored, mainly because of the challenge of shielding scoutcraft from the radiation blasted out by the nearby Sun.

A NASA probe, MESSENGER, went into orbit around Mercury on March 17 for a year-long investigation after a six-and-a-half-year trip.

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