SPACE SCOOP
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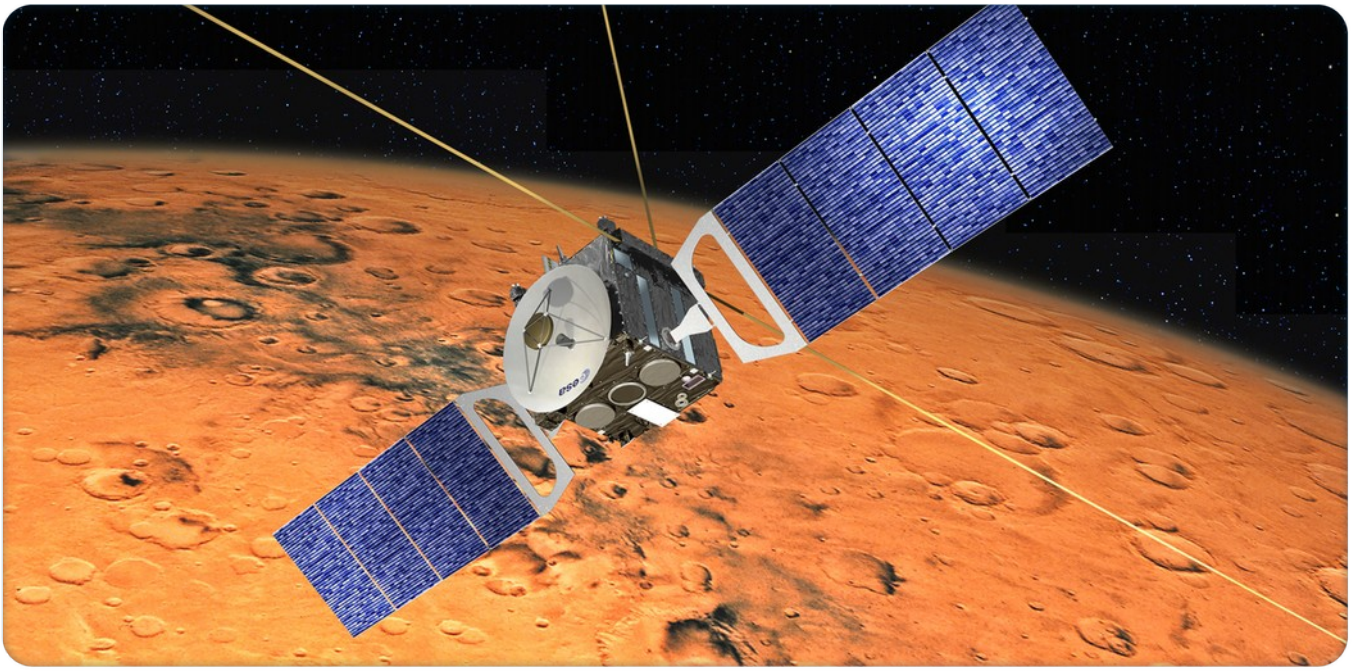
# All Aboard the Mars Express



Ten years ago, the Mars Express blasted its way out of Earth's atmosphere and began its journey to the Red Planet. Since then, the Martian probe has been hard at work shedding light on the many mysteries of this alien world. In the last decade the Mars Express has sent home dramatic images of huge volcanoes, gigantic canyons and the planet's Earth-like polar ice caps.

It has shown us that without a doubt, billions of years ago, the fourth planet from the Sun was much warmer and wetter than it is today. With detailed maps and photographs of vast, ancient river beds and flood plains, it has even detected special types of rock that can only form in water! Thanks to this mission, it has become clear that Mars could once have provided the perfect environment for life to thrive.

The spacecraft's probing didn't just find hints that water had existed there long ago, it found ice water that actually exists on the planet today! A thin crust of frosted water sits just below the planet's surface for hundreds of kilometres around the South Pole. And it's not just at the polar ice caps, water is also found in vast, frozen lakes deep beneath the planet's dry, dusty surface. At the poles themselves, the probe found enough ice water that if it melted it would completely cover the planet with an ocean 11 metres deep!

Lastly, once again raising our hopes that this planet could host alien life forms, Mars Express detected a chemical called "methane" in the Martian atmosphere. On Earth, methane is only produced by volcanic activity, or life. Does this mean there is life on Mars today?

And the adventure isn't over yet, Mars Express still has many years of life in it! Just this week, the mission sent back information about a Great Flood that carved rivers and deltas across one and a half million square kilometres of the planet's surface, three billion years ago! That's a flood plain that would almost fully cover Mexico!

## COOL FACT

Did you know Mars has two moons? They're called 'Phobos' and 'Deimos'. And the Mars express has taken some amazingly detailed photos of Phobos during its mission: see for yourself in this image.