Magellan Spacecraft

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Why is in news? Magellan spacecraft records volcanic activity on Venus

Researchers have identified evidence they interpret as active volcanism on the surface of Venus, as per a new analysis of radar images from the Magellan spacecraft.

The Magellan spacecraft was a 1,035-kilogram robotic space probe **launched by NASA** of the United States, on **May 4, 1989,** to **map the surface of Venus by using synthetic-aperture radar** and to measure the planetary gravitational field.

It was the **first spacecraft to image the entire surface of Venus** and made several discoveries about the planet.

Magellan burned up about 10 hours after being commanded to plunge into the Venusian atmosphere.

The Magellan probe was the **first interplanetary mission to be launched from the Space Shuttle**, the first one to use the Inertial Upper Stage booster, and the first spacecraft to test aero-braking as a method for circularizing its orbit.

Magellan was the fifth successful NASA mission to Venus, and it ended an eleven-year gap in U.S. interplanetary probe launches.

Upcoming Expeditions to Venus:

The **Indian Space Research Organisation** is also working on **Shukrayaan-1** to study Venus. The orbiter will likely study the planet’s geological and volcanic activity, emissions on the ground, wind speed, cloud cover, and other planetary characteristics from an elliptical orbit

The new study will help to identify target areas for future missions such as **Europe's Envision** that is scheduled to launch in 2032.

Two missions are being planned to Venus that are NASA’s **VERITAS and DAVINCI** are expected to observe venus in the 2030s.

Venus:

It is the second closest planet to the sun and the **sixth-largest planet in the solar system**. It is also **known as earth's twin.**

It is the **hottest planet in the solar system** and its extreme temperatures (450o C) and **acidic clouds** make it an unlikely place for life.

Along with Uranus it **spins backwards** with respect to other planets i.e. Its sun rises in the west and sets in the east.

Along with Mercury it has **no moons and no rings**.

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