

Venus is the 2nd planet in Solar system from sun. It is considered as Earth's twin sister due to its similar size. Venus is different from ~~see~~ Earth because it rotates / spin backward while moving forward. The single day in Venus equals 243 Earth days.

NASA's discovery program planned to launch two programs for studying Venus i.e., DAVINCI & VERTAS.

Potential for Scientific Value:

DAVINCI - objectives

1. To study the Venus thick cloud, atmosphere its components and other constituents.
2. To take the picture of Venus "Tesserae" which is unique to it and also comparable to continents of Earth.

VERTAS (objectives)

1. To create 3D mapping of Venus topography to study Venus volcanoes and planet tectonics (if any) - also study what rocks in Venus is made of?

Benefits:

- Understanding of Venus atmosphere helps in re getting a view of past life history of Venus.

- How does Earth's twin lost its way to be life bearing planet -

- Topography understanding could help to understand the formation solar system and possibly universe itself (Big Bang theory)

Feasibility:

- The Sending probes to Venus is less expensive than Mars. since Venus is quite close and availability of windows

- The Venus has thick cloud with H_2SO_4 and high temperature of $450^\circ C$ will not be easy task to study topography.

Understanding evolution solar system and its formation is much needed since it could help us avoid situations that are detrimental to Earth.