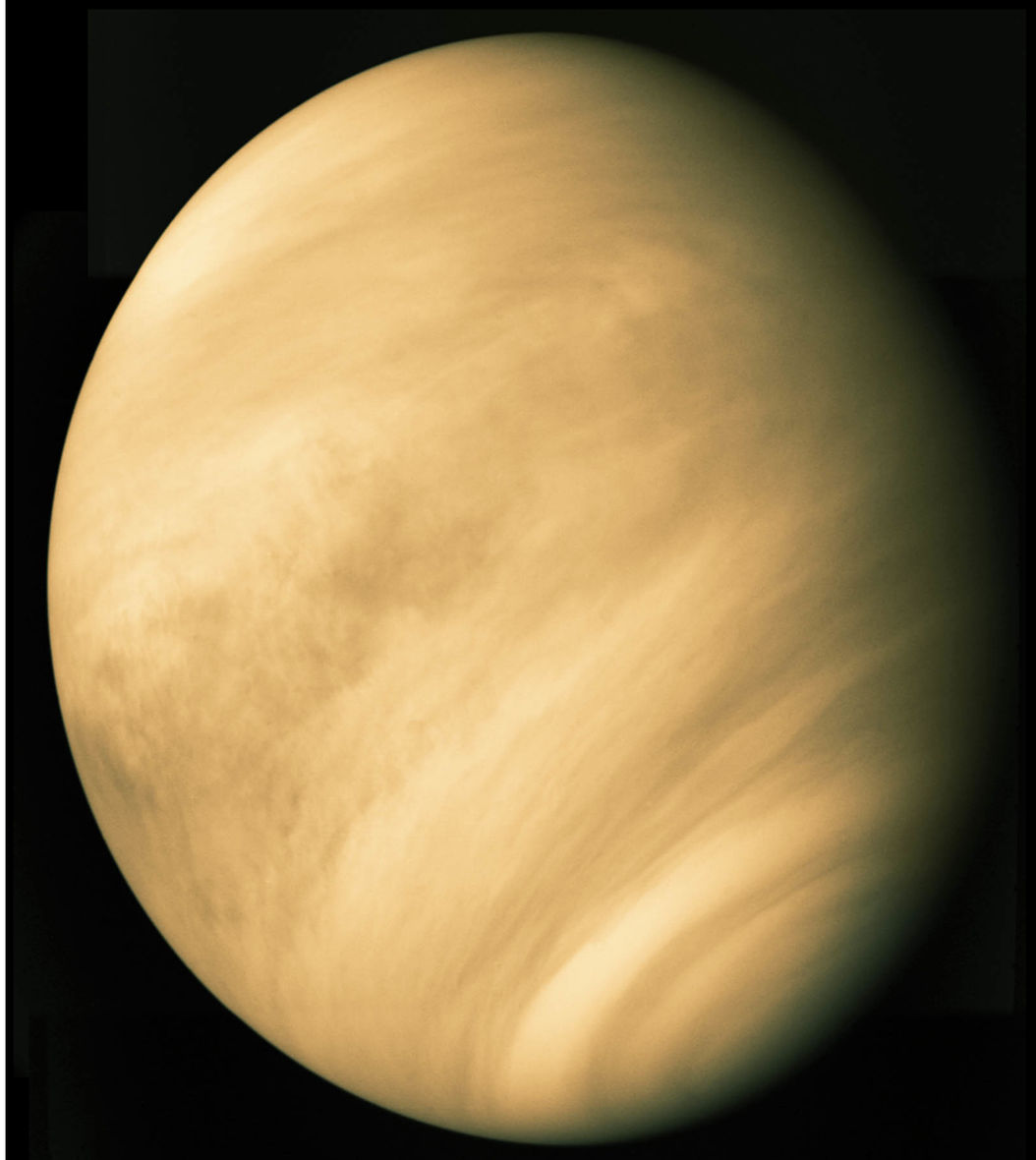
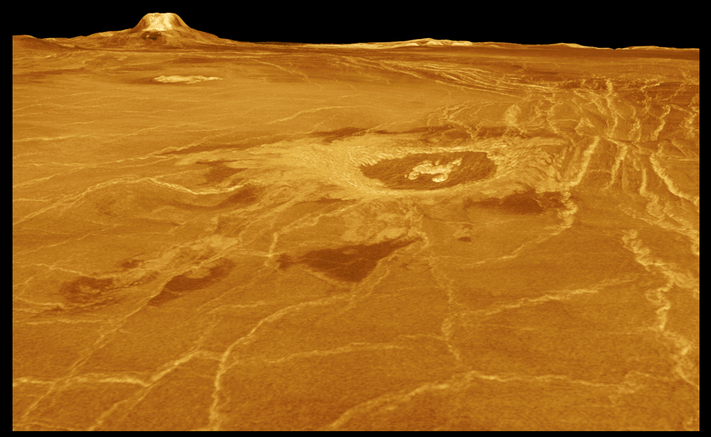
Venus

Venus is a rocky planet very similar in size and surface gravity to Earth. Nothing can live on Venus because of a runaway greenhouse effect in its eternally cloud-covered atmosphere. The temperature on Venus reaches 470 C - hot enough to melt lead - and the atmospheric pressure is like that a kilometre under the ocean on Earth.



Mariner 10 Image of Venus



The three-dimensional view of Venus' surface shown above was made using radar images from the Magellan spacecraft. The rougher the surface, the lighter it looks to radar. The image shows a volcano in the distance and an impact crater just right of center.

Despite the extreme surface conditions, several Russian spacecraft landed on Venus in the 1970s and 1980s and sent back photos (below) for a few hours.

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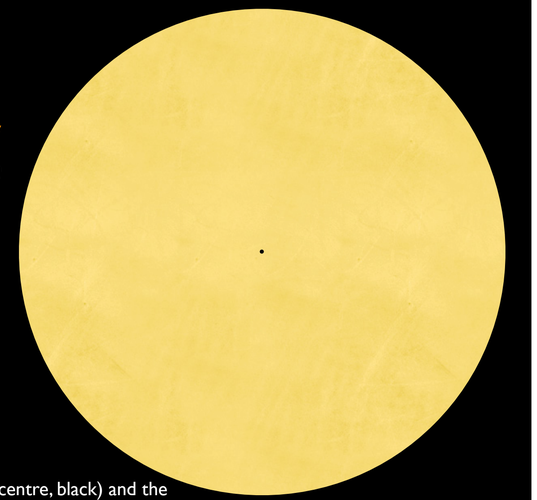
Venus spins even more slowly than Mercury, but it spins backwards as compared to its orbit around the Sun. The slow, backwards spin makes the Venusian day 177 Earth days long. Astronomers don't know for sure why Venus spins the way it does. The leading theory is that when Venus was a newly formed "protoplanet", it experienced a collision with another protoplanet which reduced its spin almost to zero. Similar collisions happened to Earth and Uranus early in their histories. The young solar system was a dangerous place!



Venus (centre, black) and the Sun (yellow) are shown above with their correct sizes in this scale model.

Venus is often called the Evening Star or the Morning Star (even though it is a planet and not a star) because Venus can be very bright in the evening or morning sky.

1 Venusian year =225 Earth days