

The Magellan spacecraft, also referred to as the Venus Radar Mapper, was a 1,035kilogram (2,282 lb) robotic space probe launched by NASA on May 4, 1989, to map the surface of Venus by using synthetic aperture radar and to measure the planetary gravitational field. Synthetic aperture radar (SAR) is a form of radar that is used to create two- or 3dimensional images of objects, such as landscapes. SAR uses the motion of the radar antenna over a target region to provide finer spatial resolution than conventional beam-scanning radars.



Major Mission Characteristics

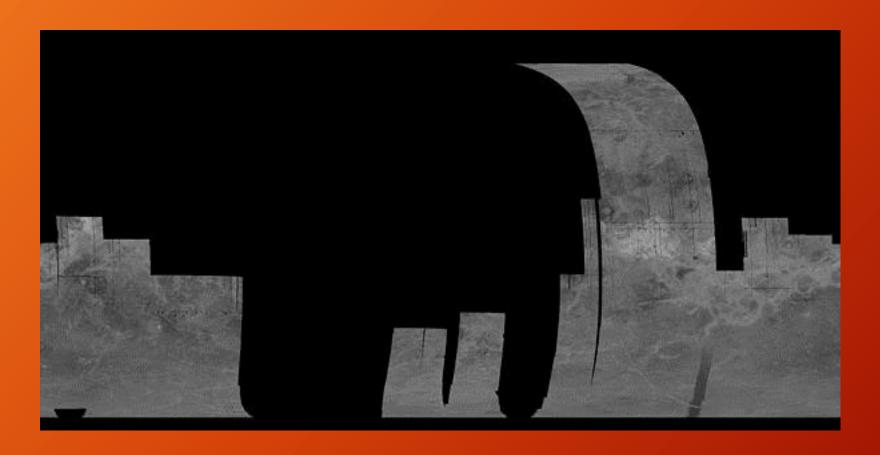
Interplanetary Cruise: May 4, 1989, to August 10, 1990 First Mapping Cycle: September 15, 1990 to September 15, 1991 Orbit Period: 3.25 hours Orbit Inclination: 86 degrees Radar Mapping Per Orbit: 37.2 minutes Planetary Coverage: 98% Extended Mission: September 15, 1991 Cycle 2: Image the south pole region and gaps from Cycle 1 Cycle 3: Fill remaining gaps and collect stereo imagery Cycle 4: Measure Venus' gravitational field Cycle 5: Aerobraking to circular orbit and global gravity measurements Cycle 6: Global gravity measurements Windmill experiment End of Mission - atmospheric entry 12-13 Oct 1994



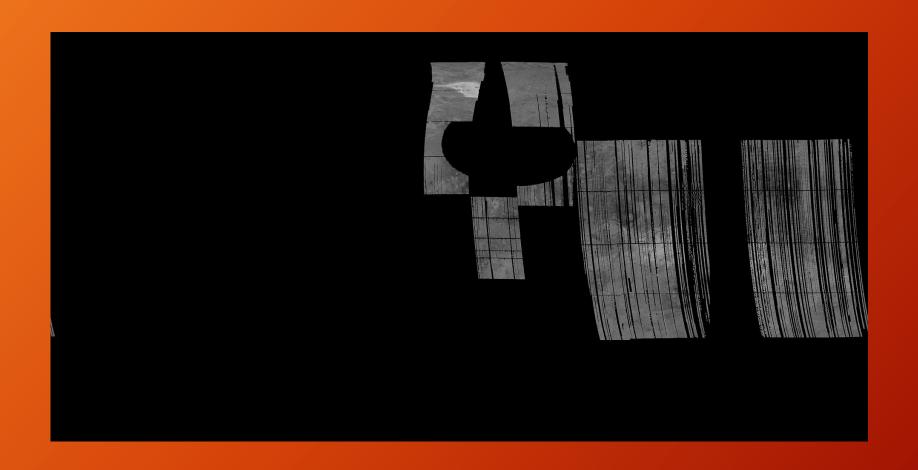
Cycle 1 Map



Cycle 2 Map



Cycle 3 Map



Venus GIS Map

