

Current status of PLANET-C Venus orbiter mission

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The Venus Climate Orbiter mission (PLANET-C), one of the future planetary missions of Japan, aims at understanding the atmospheric circulation of Venus. Meteorological information will be obtained by globally mapping clouds and minor constituents successively with 4 cameras at ultraviolet and infrared wavelengths, detecting lightning with a high-speed imager, and observing the vertical structure of the atmosphere with radio science technique. The equatorial elongated orbit with westward revolution fits the observation of the movement and temporal variation of the atmosphere which as a whole rotates westward. The systematic, continuous imaging observations will provide us with an unprecedented large dataset of the Venusian atmospheric dynamics. Additional targets of the mission are the exploration of the ground surface and the observation of zodiacal light. The mission will complement the ESA's Venus Express, which also explores the Venusian environment with different approaches.