

Current Status of the Japanese Venus Orbiter Mission PLANET-C

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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 data 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 vertical structures of the atmosphere with radio science technique. The equatorial elongated orbit with westward revolution fits the observations of the movement and temporal variation of the Venusian atmosphere which rotates westward. The systematic, continuous imaging observations will provide us with an unprecedented large dataset of the Venusian meteorology. 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.