

Development of the Ultraviolet Imager onboard Venus Climate Orbiter

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Planet-C, called "Venus Climate Orbiter(VCO)" is a Venus exploration program of JAXA/ISAS and it will be launched in 2010 summer. 5 cameras of VCO which are designed to measure different wave length will continuously observe atmospheric dynamics at different altitudes of Venus. By systematically using data from each cameras, we are able to understand a three dimensional atmospheric motion and difference of cloud structure between dayside and nightside.

Ultraviolet Imager (UVI), one of the VCO cameras, has two dimensional 1024x1024 SiCCD and measures scattering lights of sun from dayside cloud top ((60–70 km altitude) at SO₂ (283nm) and 'unknown absorber' (365nm). UVI nominally observes whole disk of venus with high spatial resolution and short time exposure, we can investigate the cloud structure from large to meso scale and its production and loss. Cloud horizontal motion is also calculated from the tracking.

UVI proto flight model (PFM) development is finishing and the performance is checked until April, 2008, and enter the making stage of flight model (FM). This presentation shows results of experiment of outgass contamination and the performance of PFM.