

First results from Venus Monitoring Camera on Venus Express

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The Venus Monitoring Camera (VMC) is part of the Venus Express payload. One of the main goals of the Venus Express mission is to study the dynamics of the Venus atmosphere. This objective requires global imaging of the planet. The VMC is designed to meet this goal having a relatively wide field of view of 17.5° . The VMC will take images of Venus in four narrow band filters from UV to near-IR all sharing one CCD. The spatial resolution will be 0.2 km to 45 km per pixel, depending on the distance from the planet. The full disc of Venus will be in the VMC FOV near the apocentre of the orbit. The VMC will complement other instruments of Venus Express by, 1) tracking cloud motions at 70 km (cloud tops) and at 50 km (main cloud layer) altitude; 2) mapping O₂ night-glow and its variability 3) mapping the night side thermal emission from the surface and studying of the lapse rate and H₂O content in the lower 6-10 km. In addition the VMC will provide imaging context for the whole mission and its movies of Venus atmosphere will be of significant interest for science as well as for the public outreach programme. By the time of this COSPAR meeting we will be already several months into the mission and we hope to present summary of first results obtained with the VMC.