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Venus cloud morphology: monitoring by the VMC/ Venus Express camera continued

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Venus Monitoring Camera (VMC) onboard the ESA Venus Express spacecraft continues investigations of the cloud morphology in ultraviolet, visible, and near-IR spectral bands with spatial resolution from 50 km at apocentre to a few hundred of meters at pericentre. The imaging shows strong spatial and latitudinal variations of the cloud pattern and significant temporal changes on all scales. The camera discovered new cloud features like bright “lace clouds” and cloud columns at the low latitudes, dark polar oval and narrow circular and spiral “grooves” in the polar regions, different types of waves at the high latitudes. The VMC observations revealed detailed structure of the sub-solar region and the afternoon convective wake, the bow-shape features and convective cells, the mid-latitude transition region and the “polar cap”. Besides the cloud morphology the VMC observations have important implications for the problems of the unknown UV absorber, microphysical processes, dynamics and radiative energy balance at the cloud tops. We will present an overview of the recent VMC observations and compare them to the earlier results.