Geophysical Research Abstracts Vol. 14, EGU2012-9800-1, 2012 EGU General Assembly 2012 © Author(s) 2012



Monitoring the mesospheric CO₂ ice clouds by OMEGA/MEx

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Along four consecutive Martian years, we have discovered and systematically monitored the appearance of CO_2 ice clouds, mapping large areas in latitude, longitude and date. These observations have been made from large (at apoapsis) to close (at pericenter) distances, thus with varying resolutions. We have identified the proper locations, altitude and seasons of these clouds. During the past year, we have observed a temporal shift in the occurrence of the clouds, preceded by the evolution of dust clouds, possibly acting as nucleation site for the CO_2 clouds. We shall present these new results, and discuss them in the framework of cloud formation processes.