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EPIC onboard DSCOVR on clouds, aerosols and solar glints

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EPIC (Earth Polychromatic Imaging Camera) is a 10-channel spectroradiometer (317-780 nm) onboard the DSCOVR (Deep Space Climate Observatory) spacecraft. DSCOVR is located near the L1 Lagrange point about 1.5 million km from Earth. EPIC provides 10 narrow band spectral images of the entire sunlit face of Earth at 10 km resolution. The unique near backscatter angular perspective of DSCOVR is used to measure ozone, sulfur dioxide, aerosols, clouds, oceans, vegetation, and solar glints. In the presentation I will focus on clouds and aerosol products: cloud mask, height, and optical thickness, aerosol optical depth and single scattering albedo, their correlation and daytime variability. In addition, I will discuss sun glints caused by specular reflection of sunlight from cloud ice crystals observed by EPIC.