Geophysical Research Abstracts
Vol. 12, EGU2010-14628, 2010
EGU General Assembly 2010

O3: Occulting Ozone Observatory

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O3 is a $1B class mission to detect Earthlike exoplanets, search for the presence of atmospheric ozone, perform photometric characterization in multiple bands, including Rayleigh scattering and the red-edge, measure seasonal and diurnal variations, and perform orbit characterization. Simple photometric instrumentation and a focus on nearby stars allows use of a relatively small telescope and occulter. Cost and risk is reduced with the use of an existing telescope design and an innovative occulter design with a high degree of heritage. Multiple observations support orbit determination to place candidate earths in the habitable zone. The telescope is also available for several years of general astrophysics observations.