

NEW PERSPECTIVES OF DYNAMIC MAGNETOSPHERIC STRUCTURE: IMAGE OBSERVATIONS

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The Imager for Magnetopause-to-Aurora Global Exploration (IMAGE) is a polar-orbiting satellite mission that has been providing ultraviolet, neutral atom, and radio plasma imaging of the inner magnetosphere since May 2000. New results on the dynamics of the plasmasphere, aurora, ring current, and ionospheric outflow have been obtained during the solar maximum conditions that prevailed during the two-year prime mission phase. The IMAGE observations are being continued until October 2005 in order to investigate inner magnetospheric dynamics during the declining phase of the solar cycle. In addition, the imaging perspective during the extended mission will move from the northern polar cap through the equatorial region and into the southern polar cap. Results to date and plans for the extended mission will be described in this paper.