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MINI-ADVANCED POINTING IMAGING CAMERA (mAPIC) CONCEPT

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Mini-Advanced Pointing Imaging Camera (mAPIC) is a high-resolution imaging system which simultaneous-ly takes images of targets and star fields with two-axis control capability, allowing rapid target imaging and image motion compensation (IMC) with extremely precise pointing knowledge. Such imaging data can accurately measure the geophysical property and high-resolution topography of target objects. The main science application of mAPIC is to serve as a geodesy/geophysical instrument which can provide the data to constrain the interior structure of planetary objects. Specific science objectives include: Determina-tion of geometric tidal flexing of natural satellites and Determination of rotational libration, nutation, and precession of natural satellites and asteroids.