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**Imaging the Interstellar Wind and the Boundary of the Heliosphere in the “Light” of Neutral Atoms using the Interstellar Boundary Explorer**

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On October 19, 2008, the Interstellar Boundary Explorer (IBEX) was launched with two Energetic Neutral Atom (ENA) cameras to take the first global images of the heliosphere’s interaction with the interstellar medium, opening another window for astrophysics. Because the Sun moves relative to the local interstellar cloud at  $\approx 26$  km/s, an interstellar wind blows through our solar system, forming an ENA point source of interstellar H, He, and O atoms. At about 100 AU from the Sun the solar wind slows down to subsonic speed through interaction with the interstellar gas, forming the termination shock and accelerating ions. Through charge exchange with interstellar gas these ions form a diffuse ENA source. Both ENA sources provide complementary insight into the exciting observations by the two Voyagers during their recent termination shock passage, a heliospheric asymmetry and the absence of the source of anomalous cosmic rays at the shock. IBEX has taken its first full-sky image and discovered lunar ENAs that allowed us to determine the Moon’s albedo for solar wind.