

FIRST RESULTS FROM THE INTERSTELLAR BOUNDARY EXPLORER (IBEX)

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**On behalf of the IBEX Science and Mission Teams*

IBEX was launched October 19th from a Pegasus rocket flown out of Kwajalein in the Marshall Islands. After being dropped off in low Earth orbit, we ignited our own solid rocket, which carried the IBEX spacecraft into an orbit with perigee of ~200 km altitude and apogee of ~34 Re (geocentric). Finally, using a series of hydrazine burns, we raised the orbit to be ~18,000 km x 48 Re. Since then, the IBEX team completed commissioning of the spacecraft and payload and IBEX is currently observing ENAs in space over the energy range from ~10 eV to 6 keV, from a variety of sources. IBEX's heliospheric observations compliment the *in situ* measurements being made by Voyager 1&2 in the inner heliosheath. Because IBEX provides all-sky maps of ENAs produced in all directions in space, it is the first mission to provide truly global information about the outer heliosphere and its interaction with local interstellar medium. In addition, because the IBEX sensors make energy resolved measurements in 14 energy bins (including three ones measured independently by the two sensors), these observations provide the energy spectral information needed to understand the details of this global interaction. This talk will provide an overview of the IBEX mission and some of the first results and observations of the global interstellar interaction.

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