

[http://ibex.swri.edu/ibexpublicdata/Data\\_Release\\_7/](http://ibex.swri.edu/ibexpublicdata/Data_Release_7/)

## **IBEX - the First 5 Years of IBEX Observations (2009-2013)**

The Interstellar Boundary Explorer (IBEX) returned its first five years of scientific observations from 2009 to 2013. In this release, we provide the backing data for the paper "McComas et al., 2014 ApJS, IBEX - the first five years (2009-2013)" in which are examined, validated, initially analyzed, and which provide to the broad scientific community a complete set of energetic neutral atom (ENA) observations for the first time. IBEX measures the fluxes of ENAs reaching 1 AU from sources in the outer heliosphere and most likely the very nearby interstellar space beyond the heliopause. The data, maps, and documentation provided in this release represent the fourth major release of the IBEX data (known as Data Release 7), incorporate important improvements, and should be used for future studies and as the citable reference for the current version of the IBEX data. In this study, we also examine five years of time evolution in the outer heliosphere and the resulting ENA emissions. These observations show a complicated variation with a general decrease in ENA fluxes from 2009 to 2012 over most regions of the sky, consistent with a 2–4 year recycle time for the previously decreasing solar wind flux. In contrast, the heliotail fluxes continue to decrease, again consistent with a significantly more distant source in the downwind direction. Finally, the Ribbon shows the most complicated time variations, with a leveling off in the southern hemisphere and continued decline in the northern one; these may be consistent with the Ribbon source being significantly farther away in the north than in the south. Together, the observations and results shown in this release expose the intricacies of our heliosphere's interaction with the local interstellar medium.