



Global map of thunderstorm flashes from one year of ASIM operation.

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The Atmosphere-Space Interaction (ASIM) mission was launched the 2nd of April and installed on an external platform of the Columbus Module of the International Space Station the 13th of April. The main objectives of the mission are to observe and study thunderstorms and their interaction with the atmosphere.

ASIM embarks two main instruments pointing at Nadir, the Modular Multispectral Imaging Array (MMIA) observing in the visible and the Modular X- and Gamma- ray Sensor (MXGS) observing in the X- and Gamma-ray bands. The MMIA is designed to observe optical emissions associated with lightnings and Transient Luminous Events (TLE) which can be distinguished by a spectral analysis of the recording. It includes two cameras operating in the bands 337/5 nm and 777.4/3 nm and three photometers operating in the bands 180-230 nm, 337/5 nm and 777.4/5 nm. The MXGS is designed to observe Terrestrial Gamma-ray Flashes (TGF). It includes a high energy detector operating in the energy range 300keV-30MeV, and a low energy detector operating in the range 50-400 keV with imaging capabilities.

The mission has now collected about one year of data including thousands of lightnings and TLEs, and hundreds of TGFs. In this presentation we show annual and seasonal world maps, indicating the frequency of occurrences and regional characteristics of the different observations associated with thunderstorms.