

Exploring the Earth's Radiation Belts

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Abstract

We present the outreach efforts of the MAARBLE (Monitoring, Analyzing and Assessing Radiation Belt Loss and Energization) project, intended to provide the general public with simplified information concerning the scientific objectives of the project, its focus and its expected outcomes. MAARBLE involves monitoring of the geospace environment through space and ground-based observations, in order to understand various aspects of the radiation belts (torus-shaped regions encircling the Earth, in which high-energy charged particles are trapped by the geomagnetic field), which have direct impact on human endeavors in space (spacecraft and astronauts exposure).

The public outreach website of MAARBLE, besides regular updates with relevant news, also employs a variety of multimedia (image and video galleries) and impressive sounds of space (characteristic sounds such as whistlers or tweeks) related to very low and ultra low frequency (VLF/ULF) electromagnetic waves. It also provides links to some of the most interesting relevant educational activities, including those at partner institutions such as the Institute of Geophysics and Planetary Physics at UCLA, the University of Alberta, the Swedish Institute of Space Physics and the Institute of Atmospheric Physics of the Academy of Sciences of the Czech Republic.

References

[1] The MAARBLE outreach website:
<http://www.maarble.eu/outreach>