



The Swarm Level 2-CAT2 data products

Hermann Lühr

Deutsches GeoForschungsZentrum, GFZ, Sect. 2.3, Earth's Magnetic Field, Potsdam, Germany (hluehr@gfz-potsdam.de, 49 331 2881235)

ESA's Earth Observation mission Swarm was successfully launched on 22 November 2013. The constellation of three satellites is expected to provide unique information about the geomagnetic field and the ionosphere-thermosphere system. Due to the complexity of information provided by the constellation, ESA has decided to implement dedicated processors developed by experts in the field. These will provide the community with user-friendly high-level data products for a variety of key ionospheric and geomagnetic physical parameters.

These Swarm Level2 CAT-2 data products will be distributed freely to the scientific community. They comprise estimates of field-aligned currents (FAC), an indicator for ionospheric irregularities (Equatorial Plasma Bubble), product name (IBI), topside total electron content (TEC), and the equatorial electric field at E-region altitude (EEF). All of these four quantities will be provided as time series sampled along the orbits. We will present first examples of the products and quantify their accuracy.