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BOOK OF ABSTRACTS

The SIDC Space Weather Pilot Project : Development of Space Weather related services for real-time GPS applications.

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The Solar Influences Data Centre (SIDC) Space Weather Pilot Project was created in response to an ESA announcement of opportunity of which the goal was to promote the development of Space Weather related services dedicated to any interested user community (customers). Our project results from a collaboration between the Royal Observatory of Belgium (Department of Geophysics and Department of Solar Physics), the Royal Meteorological Institute (Dourbes Geophysical Centre) and the Belgian Institute for Space Aeronomy. Different types of products are developed in the frame of this project. The paper describes the services dedicated to several types of real-time applications of GPS, mainly the so-called DGPS and Real-Time Kinematic (RTK) techniques : the effect of Space Weather on the precision of GPS applications is assessed on an hourly basis (i.e. in near real time). This information is published on the web in terms of positioning error or using a colour scale representing the intensity of the ionospheric disturbance. Warning messages are issued when RTK positioning conditions are expected to be degraded in the next few hours.

Oral presentation.