Geophysical Research Abstracts
Vol. 12, EGU2010-15417, 2010
EGU General Assembly 2010

Using HELIO as tool for Research into Space Weather

R. D. Bentley (1), M. Messerotti (2), J. Aboudarham (3), M. Hapgood (4), C. Jacquey (5), and The HELIO Team (6)

(1) University College London, MSSL, Dorking, United Kingdom (rdb@mssl.ucl.ac.uk/ +44 1483 278312), (2) Istituto Nazionale di Astrofisica, 302 Loc. Basovizza, Trieste 34012, Italy (messerotti@oats.inaf.it), (3) Observatoire de Paris, LESIA, Paris, France (Jean.Aboudarham@obspm.fr), (4) Science and Technology Facilities Council, Harwell Science and Innovation Campus, Didcot, OX11 0QX, UK (mike.hapgood@stfc.ac.uk), (5) Universite Paul Sabatier Toulouse III, Route de Narbonne, Toulouse CEDEX 9, 31062, France (Christian.Jacquey@cesr.fr), (6) EC FP7 Project "HELIO"

HELIO, the Heliophysics Integrated Observatory, is a research infrastructure funded under Capacities programme of the EC's 7th Framework Programme (FP7). The project is creating a collaborative environment where scientists can discover, understand and model the connection between solar phenomena, interplanetary disturbances and their effects on the planets.

HELIO will provide integrated access to metadata from the domains that constitute heliophysics - solar, heliospheric, magnetospheric and ionospheric physics - in order to track phenomena as they propagate through inter planetary space and affect the planetary environments. It will provide services to locate and retrieve the desired observations and return them to the user.

The capabilities provided by HELIO will allow the user to undertake extensive studies of the origins of events that produce space weather effects on the Earth's environment. It will also make it possible to follow the causal phenomena as they pass through other parts of the Solar System. We will discuss these possibilities giving examples of how the services provided by HELIO can be used as part of a work flow or as stand-alone capabilities.

Although the HELIO infrastructure is not specifically designed to provide real-time access to data, it might be possible to support such access if resources that are included have this capability. This will also be discussed.

The HELIO Consortium includes thirteen groups from the UK, France, Ireland, Italy, Switzerland, Spain and the US; the project started in June 2009 and has a duration of 36 months