Solar Influences Data analysis Center, at the Royal Observatory of Belgium

The “Royal Observatory of Belgium” was created in 1826, 4 years before the creation of Belgium itself, by King Willem I of the United Netherlands (= present Belgium + The Netherlands). The observatory was first located close to the center of Brussels and was moved in 1891 to its current position in Uccle, in the Southern suburbs of Brussels.

Since 1940, a systematic and standardized solar observing program was started in collaboration with the Zürich Observatory. The “Uccle Solar Equatorial Table” (USET, Fig. 1) was put in place in 1953 in a renewed dome. In recent years, the USET has been equipped with modern CCD cameras (http://sidc.be/uset/).

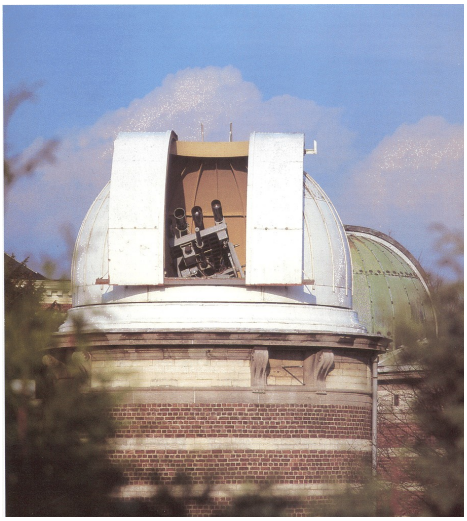

Fig. 1. The outside of the Uccle Solar dome today showing the equatorial table carrying 3 telescopes.

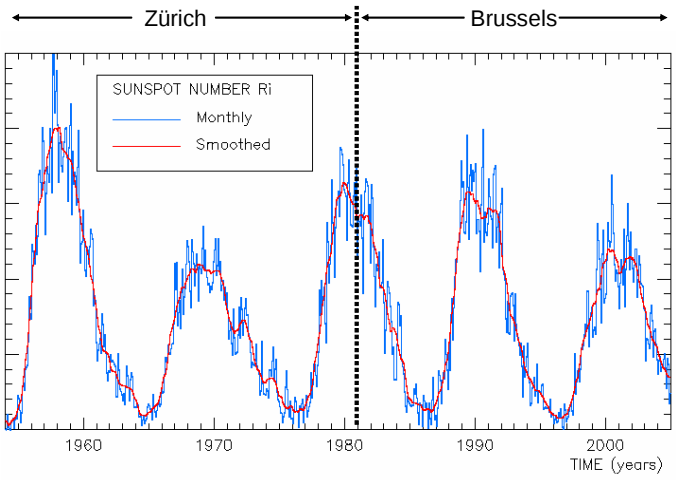

Fig. 2: The last 2.5 cycles of Zürich, and the first 2.5 cycles of Brussels, showing continuity and coherency around the transition.

In the early 1970’s, the Zürich Observatory could no longer sustain the production of the Zürich sunspot number and the responsibility was transferred to the Royal Observatory of Belgium. The “Sunspot Index Data Center” was created at ROB as a World Data center (see Fig. 2).

Since 1990, the ROB participated in the *Extreme Ultraviolet Imaging Telescope* (EIT) onboard the ESA/NASA mission SOHO. The fact that the Royal Observatory of Belgium was involved in EIT, which turned out to be an excellent space weather monitor, has paved the way for the SIDC to grow in subsequent years from the World Data Center for the sunspot index to a full space weather monitoring center. In January 2000, the SIDC makes a giant leap forward by taking over the responsibility of *Regional Warning Center (RWC, see ISES) for Western Europe* from the Observatory of Paris (Meudon). An overview of the SIDC space weather services can be found here: http://sidc.be/registration/registration_main.php

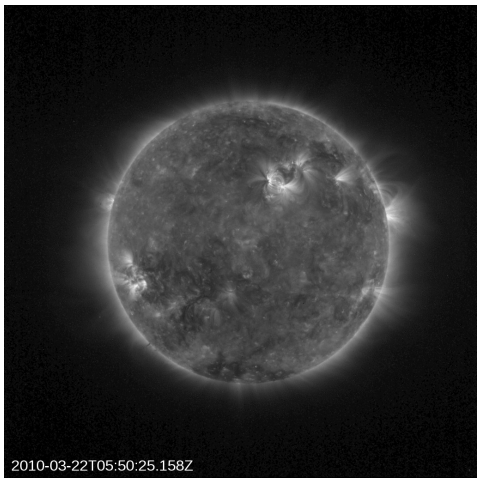

Fig. 3: PROBA2/SWAP latest image proving in near-real time information on space weather activity.

Also to reflect the extended activities, the full name of the SIDC was changed to "*Solar Influences Data analysis Center*", thus keeping the same acronym. In recent years, the SIDC has thus grown into a large research group for observational solar physics as well as a center for space weather services. The group harbours about 30 researchers and support staff. The ROB/SIDC is involved as co-investigators of most modern solar physics space missions (SOHO, STEREO, SDO). ROB/SIDC is also the Principal Investigator insitute for the solar instruments on PROBA2, named SWAP and LYRA. (http://proba2.sidc.be).