RADIONET3 REPORT FROM SE40

SUBJECT	**Report from SE40**
DATE	**20/21-11-2014**
PLACE	**Copenhagen (DK),** **ECO Offices**
PARTICIPANTS	Axel Jessner

BACKGROUND:

The IRIDIUM satellite system is known to cause severe radio interference for radio astronomy.
New measurements of the interference were made in Leeheim and evaluated with advice and software support from CRAF. The CEPT SE40 committee had requested CRAF to participate in the meeting and to present the document SE40(14)42-Tools_for_the_evaluation_of_satellite_measurements from CRAF/ (MPIfR) which contained a the documentation (user guide) for the reference implementation of the software used to calculate the EPFD estimate from satellite measurements

HIGHLIGHTS:

Report on new IRIDIUM MSS Measurements

The measurements carried out by the Leeheim monitoring station confirmed earlier measurements results conducted in 2011. A new report was finalised and submitted to public consultation. It showed that the level of interference from IRIDIUM satellites did not change over between 2010 and 2013.
Draft ECC Report 226 from PC (doc. SE40(14)049) was presented by the chair. One comment from Portugal was received proposing to remove section 7 as it doesn't bring additional information to the one already contained in the conclusion section. The meeting agreed to this suggestion. The revised document will be submitted to the January 2015 *WGSE* meeting for final approval.

Guidance document on data reduction (WI SE40_25)

The document SE40(14)042 submitted by Germany, CRAF, France, Switzerland was presented by Dr. Axel Jessner (CRAF (EU)/ MPIfR/Germany).

The document was converted into the working document towards draft report. Comments were received during the presentation and it was decided to develop the guidance document further at the next meeting taking into account more comments improving its readability.

The status of the draft deliverable was also discussed in order to establish whether it will eventually become an ECC or alternatively an ECO Report. Depending on the agreement reached regarding the status of the draft report, it will be necessary to revisit at a later stage the section dealing with copyrights of the ANFR and Satellite Tool Kit software products in order to reflect in a correct manner the ECC/ECO responsibility while recommending/promoting usage of the software products.

Measurements of the new IRIDIUM Satellites

The chair, Dr. Stella Lyubchenko (ECO) informed the meeting about outcome of the *Sat MoU* meeting, which took place on 11 – 12th November, regarding possible schedule of IRIDIUM measurements for the next year. The feeling of the *Sat MoU* meeting was, that it could be beneficial to start measurements as soon as new satellites have been launched as that could give an impression regarding expected improvements. A measurement campaign similar to the 2010 and 2013 will be launched when enough satellites are on the orbit. Leeheim staff offered to conduct measurements of 1 – 2 satellites using specification provided by SE40 prior the 2013 campaign. In order to launch the process, Sat MoU needs to receive a formal request from *WGSE* which is in practice coming from SE40 as an expert group.

Juergen Nitschke (Germany) informed the meeting that Iridium, Thales, German radio astronomers and the Bundesnetzagentur agreed in a meeting in March 2013 to accompany the launch of the first new Iridium satellite (at that time, the launch was foreseen for February 2015) by carrying out measurements of their out of band emissions. These measurements are seen as giving only preliminary results, however SE40 requests to be informed about them.

NEXT STEPS:

The revised ECC Report 226 about recent satellite measurement will be submitted to the January 2015 *WGSE* meeting for final approval and publication on the CEPT website.

Additional editorial work on the draft report about measurement processing software tools will be needed to adapt it to its final for, before it is submitted to *WGSE*.