

RADIONET3

TRIPS OF WP7

RADIO ASTRONOMICAL SPECTRUM MANAGEMENT

SUBJECT	Meeting CEPT CPG-PTD
DATE	13-17 January, 2014
PLACE	Rome, Italy
PARTICIPANTS	Wim van Driel (CRAF)

BACKGROUND:

At the 2012 World Radiocommunication Conference (WRC-12) of the International Telecommunication Union (ITU) an Agenda Item was defined for the next WRC in 2015, on the identification of an additional 600 MHz bandwidth in the range 470 MHz to 6 GHz to be allocated to International Mobile Telecommunications (IMT) for the development of terrestrial mobile broadband applications.

Some of the frequency bands considered for the new IMT allocations are shared with, immediately adjacent to or nearby 14 bands used for radio astronomical observations. This indicates there are potential threats to some of the most commonly used radio astronomy bands from these potential allocations.

At a European level, the CPG-PTD group of the CEPT (European Conference of Postal and Telecommunications Administrations) is charged with coordinating proposals for new IMT frequency allocations, based on compatibility studies between the IMT and other spectrum users like the Radio Astronomy Service (RAS), and preparing European positions for WRC-15, where final decisions on frequency allocations will be made.

HIGHLIGHTS:

At this CPG-PTD meeting, CRAF activities were focused on the protection of radio astronomy observations in the so-called L Band (1300-1518 MHz). Parts of this band are used extensively for observations of the 21cm HI line. The new CRAF study submitted to the meeting shows that the protection of radio astronomy observations in the RAS band 1330-1400 MHz requires large separation distances (hundreds of km) between IMT base stations and radio telescopes in case of RAS-IMT in-band sharing, whereas in the 1400-1427 MHz RAS band moderate separation distances (tens of km) are required to ensure our protection from unwanted emissions of IMT systems in adjacent or nearby bands. This indicates that RAS-IMT in-band sharing at 1330-1400 MHz will be impossible to achieve in practice.

The CRAF conclusions were included in the draft CEPT Brief on the WRC-15 Agenda Item.

NEXT STEPS:

Continued participation in meetings of CEPT PTD and related meetings (International Telecommunication Union Joint Task Group 4-5-6-7), through the revision of RAS-IMT in-band sharing and compatibility studies and work towards New Draft Report ITU-R RA.[RAS-IMT]. Wim van Driel is chair of SWG 5-3 (radio astronomy matters) of ITU-R JTG 4-5-6-7.