Radio Spectrum Regulation and Management - Radio Astronomy

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The usage of the radio spectrum for communications is tightly regulated and managed internationally by the International Telecommunications Union (ITU), an international Agency under the aegis of the United Nations. Communications in the radio spectrum are regulated by the ITU Radiocommunications Sector (ITU-R). The instrument for such regulation is an international treaty described in the Radio Regulations (RR) which is revised every 3-4 years by the World Radiocommunication Conference (WRC). A complex structure of Study Groups and Working parties has been established to facilitate the technical and regulatory studies necessary for the maintenance and update of the Radio Regulations.

Radio Astronomy is defined in the ITU-R as a Radiocommunications Service (the RAS) and is included in the radio spectrum regulation of the ITU-R. A dedicated working party is devoted to radio astronomy issues (Working Party 7D) within the Science Services Study Group (Study Group 7). Working Party 7D is responsible for the technical spectrum issues related to radio astronomy and produces and maintains the ITU-R Recommendations and Reports.

In this presentation the ITU-R structure and processes will be described and an overview of the activities of Working party 7D will be presented.

In addition, the Radio Astronomy community has established regional and international Committees for the management and protection of radio spectrum allocated to radio astronomy. First there is the International "Scientific Committed on Frequency Allocations for Radio Astronomy and Space Science" (IUCAF). Regionally there are three multinational committees: the "Committee on Radio Astronomy Frequencies" (CRAF) in Europe; the "Committee on Radio Frequencies" (CORF) in the Americas; and the "Radio Astronomy Frequency Committee in the Asia Pacific" (RAFCAP) for the Asia Pacific region. The structure and functions of these committees and their relationship to the ITU-R will be presented.