#### ARTICLE 29

# Radio astronomy service

# Section I - General provisions

- 29.1 § 1 Administrations shall cooperate in protecting the radio astronomy service from interference, bearing in mind:
- 29.2 a) the exceptionally high sensitivity of radio astronomy stations;
- 29.3 b) the frequent need for long periods of observation without harmful interference; and
- 29.4 c) that the small number of radio astronomy stations in each country and their known locations often make it practicable to give special consideration to the avoidance of interference.
- 29.5 § 2 The locations of the radio astronomy stations to be protected and their frequencies of observation shall be notified to the Bureau in accordance with No. 11.12 and published in accordance with No. 20.16 for communication to Member States.

#### Section II - Measures to be taken in the radio astronomy service

- 29.6 § 3 The locations of radio astronomy stations shall be selected with due regard to the possibility of harmful interference to these stations.
- 29.7 § 4 All practicable technical means shall be adopted at radio astronomy stations to reduce their susceptibility to interference. The development of improved techniques for reducing susceptibility to interference shall be pursued, including participation in cooperative studies through the Radiocommunication Sector.

# Section III - Protection of the radio astronomy service

- 29.8 § 5 The status of the radio astronomy service in the various frequency bands is specified in the Table of Frequency Allocations (Article 5). Administrations shall provide protection from interference to stations in the radio astronomy service in accordance with the status of this service in those bands (see also Nos. 4.6, 22.22 to 22.24 and 22.25).
- 29.9 § 6 In providing protection from interference to the radio astronomy service on a permanent or temporary basis, administrations shall use appropriate means such as geographical separation, site shielding, antenna directivity and the use of time-sharing and the minimum practicable transmitter power.
- 29.10 § 7 In bands adjacent to those in which observations are carried out in the radio astronomy service, operating in accordance with these Regulations, administrations are urged, when assigning frequencies to stations of other services, to take all practicable steps to protect the radio astronomy service from harmful interference in accordance with No. 4.5. In addition to the measures referred to in No. 29.9, technical means for minimizing the power radiated at frequencies within the band used for radio astronomy should be given special consideration (see also No. 4.6).

- 29.11 § 8 When assigning frequencies to stations in other bands, administrations are urged, as far as practicable, to take into consideration the need to avoid spurious emissions which could cause harmful interference to the radio astronomy service operating in accordance with these Regulations (see also No. 4.6).
- $\S 9$  In applying the measures outlined in this Section, administrations should bear in mind that the radio astronomy service is extremely susceptible to interference from space and airborne transmitters (for further information, see the most recent version of Recommendation ITU-R RA.769). (WRC-03)
- $\S 10$  Administrations shall take note of the relevant ITU-R Recommendations with the aim of limiting interference to the radio astronomy service from other services.