

NOTIFICATION OF RADIO ASTRONOMY STATIONS WITHIN THE ITU

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ITU Radio Regulation **11.12** states, “Any frequency to be used for reception by a particular radio astronomy station may be notified if it is desired that such data be included in the Master Register.” In preparations for WRC-03 there are indications that in some instances the protection of radio astronomy stations will be predicated on them being notified to the ITU before a specified date. In the CPM report to WRC-03, under agenda item 1.32 (which concerns frequencies around 42.5 GHz), the following text is contained in a possible footnote, “These values shall apply at any radio astronomy station that has been notified to ITU, either before [end of WRC-03], or before the date of receipt of the advance publication information (API) of the space station to which the limits are to apply. For other radio astronomy stations, notified after these dates, agreement may be sought with administrations authorizing the space stations.”¹

Using the ITU’s SRS from March 2002, a review of the notification of USA radio astronomy stations to the ITU indicates the following:

- the first USA radio astronomy service (RAS) station was notified to the ITU in January 1958 (Hamilton, MA)
- the last USA RAS station was notified in October 1975 (VLA, NM)
- much of the information in the current ITU database is suspect
- it appears that the current information contained in the ITU database does not accurately reflect actual RAS usage

It is expected that other administrations operating radio astronomy sites will also determine that they have not been diligent in notifying their requirements to the ITU. Each administration, or their radio astronomy communities, will have to review the database to determine if the information is sufficient to cover its requirements.

The notification of radio astronomy assignments to the ITU is done through an electronic

¹ See CPM Report to the WRC-03, Chapter 4, § 4.5.

process. The “SpaceCap” software can be downloaded from the ITU website at

<http://www.itu.int/ITU-R/software/space/spacecap/index.html>

Only a limited amount of information needs to be submitted to the ITU for radio astronomy assignments (see appendix). But this information needs to be forwarded by radio astronomers to the administration on whose territory their radio astronomy sites lie, whereupon that administration must then submit it to the ITU.

In conclusion, it is evident that the radio astronomy community needs to become much more active in the notification of their assignments to the ITU, including reviewing existing notifications, and updating unregistered requirements. This would seem to require the use of minimal resources to achieve worldwide recognition of the needs of radio astronomers, and will quite possibly allow their operations to continue to be protected by the ITU’s Radio Regulations.

APPENDIX

APPENDIX 4 DATA REQUIREMENTS FOR NOTIFICATION OF RADIO ASTRONOMY ASSIGNMENTS²

1. Administration
2. Name of Station
3. Country (Location of Station)
4. Geographic Coordinates (Longitude and Latitude)
5. Antenna type/characteristics
6. Assigned Frequency Band
7. Operating Administration or Agency
8. Class of Observations
9. Assigned Frequencies

² More detailed information can be found in the ITU Radio Regulations, Appendix 4, Annex 2A (Characteristics of satellite networks’ earth stations or radio astronomy stations)