

INTERNATIONAL TELECOMMUNICATION UNION TELECOMMUNICATION DEVELOPMENT BUREAU

WORLD TELECOMMUNICATION DEVELOPMENT CONFERENCE (WTDC-98)

Document 29-E 13 January 1998 Original: Russian

Valletta, Malta, 23 March - 1 April 1998

For action

Agenda item: 1.3

PLENARY MEETING

Russian Federation

PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda items: 1.5 (12 BAAP Programmes) and 1.3 (Study Group 2)

Proposals

RUS/29/1

Retain Programme No. 6 "Frequency management" of the 1994 Buenos Aires Action Plan, but shifting the emphasis to speedy establishment and implementation of an advanced spectrum management system (ASMS), including the elaboration of specifications for the ASMS, development of the relevant software and accompanying documentation on the basis of those specifications, through testing of the software and the organization of training courses on its introduction and operation. Provision should also be made for direct assistance to some administrations for implementation of the ASMS.

RUS/29/2

Set a new Question (or Questions) for study by ITU-D Study Group 2 to underpin the introduction and effective utilization of the ASMS by telecommunication administrations. This may include:

• Development of standard computerized forms of notice for frequency assignments in the various radio services (endeavouring to keep the number of such forms to a minimum) so that telecommunication administrations may already begin compiling the necessary corpus of reliable data on individual frequency assignments, which would subsequently serve as valuable national frequency assignment registers modelled on the ASMS database. This task could be started without delay, since a comprehensive list of basic and additional requirements for the ASMS database is already given in the Annex to Recommendation ITU-R SM.[Document 1/25] "Design guidelines for developing advanced automated spectrum management systems (ASMS)" (see below).

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- Compilation of atlases of typical radio equipment characteristics to assist telecommunication administrations in completing the ASMS database. First and foremost, there is a need for an atlas of VHF/UHF receiving/transmitting antennas for radiocommunication and broadcasting stations, for this is an area where many administrations encounter significant difficulties. Antenna radiation patterns - even in a generalized form - are an absolutely essential element for any reliable frequency planning, compatibility calculations and so forth. If possible, the antenna atlas should contain the following formalized data, presented in a clear and comprehensible form: the most commonly accepted designation or designations of the antenna, where these exist; a short description of the antenna; different models of the antenna, with corresponding diagrams or figures; typical gain values; average antenna patterns in the horizontal and vertical planes; formulae approximating the antenna patterns (where these exist) or corresponding data in tabular form; etc. The ASMS software, for its part, should permit the input of antenna patterns in analytical or tabular form, not to speak of the need to accommodate transmitting and receiving antenna characteristics in all program applications for calculating wanted and interfering signal levels for frequency planning, the identification of free channels, compatibility calculations, and such like.
- Preparation of guides or handbooks on the use of ASMS procedures for frequency planning, identification of free channels, compatibility calculations, determining interference levels, and so forth.
- On the basis of the general principles set out in Report ITU-R SM.2012 "Economic aspects of spectrum management" (see below), development of practical guides for determining a standard schedule of tariffs for services relating to management of the use of the spectrum, including licence fees, which administrations could use as a basis in establishing there own national schedule of tariffs.

Reasons

Under Programme No. 6 "Frequency Management" of the 1994 Buenos Aires Action Plan, ITU-D, in collaboration with ITU-R, has carried out a lot of useful work on the development of BASMS software, on the basis of ITU-R Recommendation SM.1048 "Design guidelines for a basic automated spectrum management system (BASMS)", and on its introduction in various countries. ITU-R has been working on draft new Recommendation SM.[Document 1/25] "Design guidelines for developing advanced automated spectrum management systems (ASMS)" which has been submitted to administrations for approval under the accelerated procedure by 18 February 1998.

The parameters and capabilities of the ASMS far surpass those of the BASMS and, if the necessary software is developed, the ASMS could constitute a valuable frequency management system in many countries, at low cost for the administrations.

Accordingly, in the period following the World Telecommunication Development Conference (Valletta, 1998), efforts should be undertaken by ITU-D, in cooperation with ITU-R, to expedite similar work on the ASMS, under a correspondingly improved version of Programme No. 6 "Frequency management" of the 1994 Buenos Aires Action Plan.

In 1997, Report ITU-R SM.2012 "Economic aspects of spectrum management" was drawn up and published, which, *inter alia*, outlines modern approaches to the financing of national spectrum management systems, including mechanisms such as licence fees and charges for other frequency management services. Without detracting in the slightest from the value of that Report as a pioneer official ITU document in this new area of activity, it has to be said that even with this material many administrations will still find it fairly difficult to develop a sound and practical national schedule of tariffs for frequency management services, including the tariffs which will need to be incorporated in the ASMS for automatic accounting of licence fees. The schedule of tariffs will depend on the level of development of the country's economy as a whole and the telecommunication sector in particular, the relationship between the different radio services in different frequency bands and transmitters of various powers within each service in different frequency bands, the different categories of owner, and so on.

On the one hand, the tariffs should not be excessive (in relation to the prevailing social and economic conditions in the country), so as not to constitute an obstacle to the balanced development of all radiocommunication services, in the interests of the development of the country's economy as a whole. On the other hand, they should at least cover the cost of activities carried out by national frequency management bodies in maintaining orderly use of the spectrum, which is also a prerequisite for effective and balanced development of radiocommunication services in the country.

Report SM.2012 does not give direct, practically applicable solutions to all these problems. For this reason, as part of work in connection with the ASMS, additional studies need to be carried out on tariffs for frequency management services, with a view to providing the administrations with more detailed and practically applicable data, coming as close as possible to actual figures. It would be more appropriate for such practical studies to be carried out by ITU-D, in collaboration with ITU-R.

The Russian Federation is prepared to continue (on the basis of the experience of work on the BASMS) to participate in the activities of the international group of experts to develop specifications for ASMS, development and thorough testing of software, and training courses in the operation of the ASMS. When the software and accompanying documentation for the ASMS is completed, the Russian Federation is prepared to take care of their translation into Russian.

The Russian Federation is also willing to take an active part in carrying out the proposed work through ITU-D Study Group 2.