

RESULTS OF THE WORLD RADIOCOMMUNICATION CONFERENCE 2000

The World Radiocommunication Conference (WRC-2000) was held in Istanbul from 8 May to 2 June 2000. The conference was attended by more than 2300 delegations from 146 ITU Member States. Japan sent 85 delegations to the conference, however nobody from JMA was attended this conference. The main results of WRC-2000 regarding Meteorological Activities, in particular for the Meteorological Satellite Services, are informed CGMS. And the continuing issues and new agendas expected to be deal with at WRC-2003 are presented in this working paper.

Action Proposed

CGMS is invited to note the information about radio frequency matters forward WRC-2003, in order to protect frequency bands for meteorological activities.

RESULTS OF WRC-2000

1. INTRODUCTION-SUMMARY

The World Radiocommunication Conference 2000 (WRC-2000) was held in Istanbul from 8 May to 2 June 2000. The conference was attended by more than 2300 delegations from 146 ITU Member States. Japan Meteorological Agency (JMA) did not send anyone to the conference as a member of Japan delegation, but some of Japan proposals for WRC-2000 were provided by JMA with the Ministry of Posts and Telecommunications (MPT) that is the Telecommunications Administration of Japan.

Japan is a member of the Asia Pacific Telecommunity (APT), most of APT proposals for WRC-2000 were provided by Japan. At WRC-2000, MPT reported that Japan carried out the mission as a leading-country of APT. Several APT proposals were provided to protect frequency bands for meteorological activities by JMA, in accordance with WMO recommendations and the result of CGMS-XXVII.

JMA informs CGMS of the results related to the Meteorological Satellite service (MetSat) and the Earth Exploration Satellite service (EESS), which are useful for meteorological activities, and the cost recovery for satellite network filings.

2. BACKGROUND

At WRC-97, the allocations for meteorological bands were resolved as follows:

- 401-403 MHz: Upgrade allocation of the MetSat in this frequency band to the primary status
- 405-406 MHz: The study for the sharing between Meteorological Aids Services (MetAid) and Mobile Satellite Services (MSS) has been continued until WRC-2000.
- 1683-1690 MHz: This frequency band is allocated to downlinks for GVAR from GOES and S-VISSR from GMS. The proposal, which would be allocated 1683-1690 MHz to the uplink for MSS, by the European Radiocommunications Committee (CEPT) and APT administrations, failed. However, the allocation to MSS in this frequency band will be deliberated again at the WRC-2000, along with the allocation of the downlink frequency band for MSS.
- 18.6-18.8GHz: The worldwide allocation for EESS (passive) and space research (passive) service in this band will be considered at the WRC-2000, taking into account the results of the ITU-R studies.
- Above 71GHz: The consideration of allocation of frequency bands above 71 GHz to the EESS (passive) and radio astronomy service was the agenda for the WRC-2000.

Since WARC-92, most of agenda at the World Radiocommunication Conferences were issues regarding the new allocation for MSS in some frequency bands. WMO has continued to appeal to ITU-R to protect and obtain the frequency bands for meteorological activities, and CGMS also has continued to discuss what CGMS members should do to protect frequency bands for MetSat and EESS since WARC-92.

The Plenipotentiary Conference (Minneapolis, 1998) pursued its intention to introduce cost recovery for satellite network filings as soon as possible. WRC-2000 was required modifications to the Radio Regulations to take account of the content of this decision. At the CGMS-XXVII, Members was invited to notify national ITU representatives of the benefit of meteorological satellites in seeking an exemption from costing recovery for satellite filings of these systems.

3. RESULTS OF WRC-2000

3.1 MetSat

i) 1675-1690 MHz

The CEPT, the UAE and some administration proposed to allocate the MSS 1683-1690MHz band for the uplink (Earth to space), in which this frequency band has been allocated to MetSat for GOES GVAR and GMS S-VISSR (MTSAT *HiRID/**HRIT) receiving stations, 8 countries including Japan proposed not to allocate to MSS by the common proposal. The USA, the Russia and the Ukraine supported the common proposal and were opposed to the CEPT and the UAE.

The results are as follows;

- the additional frequency allocation to MSS in the band 1683-1690 (Earth-to-space) is not carried out as in the bands 1559-1567 (space-to-Earth) and 1492-1525MHz (space-to-Earth).
- ITU-R is invited to complete, as a matter of urgency and in time for WRC-03, the technical and operational studies on the feasibility of sharing between MSS and MetSat, by determining appropriate separation distances between mobile earth stations and MetSat stations, including GVAR and S-VISSR (HiRID/HRIT) stations, in the band 1683-1690 MHz, as stated in Recommendation ITU-R SA.1158-2. This is one of agendas for WRC-03. However, the band 1559-1567 MHz is excluded from the studies.
- WMO is urged by WRC-2000 to participate actively in these studies by submitting contributions.

* : High Resolution Imager Data

** : High Rate Information Transmission

3.2 EESS

i) 18.6-18.8 GHz

The sharing between EESS (passive) and Fixed Service (FS), and between EESS (passive) and Fixed Satellite Service (FSS) in the band 18.6-18.8 GHz was considered. The results are as followings;

- WRC-2000 upgraded common worldwide primary status for EESS (passive), in the band 18.6-18.8 GHz, however, Space Research Service (SRS) (passive) is left the status as it is.
- In the sharing condition between EESS and FS, the power of each RF carrier frequency delivered to the input of each antenna of a station in FS in this frequency band shall not exceed -3 dBW.
- In order to protect EESS (passive) from non-Geostationary Satellite Orbit (GSO) FSS, the use of this frequency band by FSS is limited to geostationary systems and systems with an orbit of apogee greater than 20,000 km.

(ii) 71-275 GHz

The frequency allocations for EESS (passive) in the band 71-275 GHz were modified. The modified allocations almost meet the required frequencies for the meteorological activities above 71 GHz in the Meteorological Handbook by WMO. And it was adopted that the sharing between active and passive services would be studied by a future WRC.

3.3 Administrative procedures for cost recovery for satellite network filings

The introduction of cost recovery for satellite network filings was resolved at the Plenipotentiary Conference, Minneapolis in 1998 (Resolution 88). In accordance with Resolution 88, it was considered by WRC-2000 what any amendments to the Radio Regulations should be, if administration does not pay the cost for satellite filings.

As results of consideration, on the implementation of cost recovery for satellite network filings, the Radiocommunication Bureau in ITU (the Bureau) shall send a reminder to the notification to administration, not later than 60 days prior to due date of the payment, and if payment has not been received by that date, the relating publication is canceled by the Bureau.

However, the date to enter into force will be considered by the 2002 Plenipotentiary Conference.

4. AGENDA FOR WRC-2003

A large number of agenda for WRC-03 were proposed by each area and administration. The frequency bands and agendas related to the meteorological activities as MetSat and EESS are shown the followings.

i) 5150-5725 MHz

AGENDA 1.5: to consider• regulatory provisions and spectrum requirements for new and additional allocations to the mobile, fixed, Earth exploration-satellite and space research services, and to review the status of the radiolocation service

in the frequency range 5150-5725 MHz, with a view to upgrading it, taking into account the results of ITU-R studies;

ii) 35-38 GHz

AGENDA 1.12: to consider allocations and regulatory issues related to the space science services and to review all Earth exploration-satellite service and space research service allocations between 35 and 38 GHz;

iii) Below 1 GHz

AGENDA 1.20: to consider additional allocations on a worldwide basis for non-GSO FSS with service links operating below 1 GHz;

iv) 1-3 GHz band

AGENDA 1.31: to consider the additional allocations to the mobile-satellite service in the 1-3 GHz band;

After WRC-2000 was completed, the 1st Conference Preparatory Meeting (CPM) for WRC-03 was held in Istanbul from 07 to 08 June 2000. The decision of the Study Group (SG) and Working Party (WP) in ITU-R that would be in charge each agenda for WRC-03 and the ITU-R schedule until WRC-03 were discussed at this conference, which were joined 98 participants from 31 areas and countries. The ITU-R schedule forward WRC-2003 is shown in Table-JPN-WP-09.

5. FUTURE ACTIVITIES

Some activities forward WRC-03 already began by ITU-R. The Ministry of Posts and Telecommunications of Japan, also started to organize the national study groups and working parties in Japan in accordance with the decision of the first CPM for WRC-03.

CGMS members have been urged to contact their national spectrum authorities, and to inform them of the importance to protect necessary frequency bands for meteorological activities, as same as what CGMS members had done since WRC-95. And it will be necessary for CGMS member to exchange some information by e-mail each other and to keep mutual cooperation in preparation forward WRC-03, in order to get the good results for meteorological service at future WRC.

Time	Conference and Event
2000	
13 – 22, September	WP7E
18 – 26, September	WP6E, WP6S
25 September – 04 October	WP4A
27 September – 04 October	WP4-9A
09 – 18, October	WP8A
17 – 27, October	WP8B, D, F
23 – 31, October	TG1/5
30 – 31, October	SG8
2001	
2002	
31, May	Submission of study results by SG, WP
03 – 07, June	Preparation of the CPM report (draft)
June or July	SC Meeting
30 August	Distribution of the CPM report (draft) to each county
18 – 29, November	CPM (second Meeting)
2003	
June	WRC-2003
WP	Working Party
TG	Task Group
SG	Study Group
CPM	Conference Preparatory Meeting
SC	Special Conference for Regulations and Procedures
WRC	World Radiocommunication Conference

Table-JPN-WP-09 Schedule for ITU-R forward WRC-2003