

## **JMA'S ACTIVITIES FOR WRC-07 AND THOSE FOR WRC-11**

This paper reports on JMA's activities for the World Radiocommunication Conference 2007 (WRC-07) in regard to two agenda items related to the Meteorological Satellite Service (MetSat) and also reports on JMA's activities for WRC-11.

JMA will continue preparatory activities for future WRC meetings including WRC-11 regarding protection of the existing frequency bands and acquisition of the new frequency bands necessary for MetSat through exchanging information with CGMS members as well as the WMO/CBS/SG-RFC.

## JMA'S ACTIVITIES FOR WRC-07 AND THOSE FOR WRC-11

### 1 INTRODUCTION

The World Radiocommunication Conference 2007 (WRC-07) was held at Geneva in Switzerland from 22 October to 16 November 2007. About 2,800 delegates from 164 countries, including 80 delegates from Japan, attended the conference. This paper reports on JMA's activities on two agenda items of WRC-07 JMA's activities related to the Meteorological Satellite Service (MetSat) and JMA's preparatory activities for WRC-11.

### 2 JMA'S ACTIVITIES ON AGENDA ITNEM 1.2 AND 1.4 OF WRC-07

JMA has been requesting the protection of the existing frequency bands and the acquisition of the new frequency bands necessary for MetSat to the Japanese radiocommunication administration (a function of the Ministry of Internal Affairs and Communications (MIC)) as a member of the study groups for WRC-07 that was established in Japan by the MIC.

#### 2.1 Agenda Item 1.2

*"To consider allocations and regulatory issues related to the Earth exploration-satellite (passive) service, space research (passive) service and the meteorological satellite service in accordance with Resolutions 742 (WRC-03) and 746 (WRC-03)."*

In this agenda item, the criteria for sharing between the MetSat and other services in the 18-18.4 GHz band was discussed with the intention of extending the bandwidth of the current 18.1-18.3 GHz allocation for MetSat (space-to-Earth).

At WRC-03, EUMETSAT proposed to extend the bandwidth of the current 18.1-18.3 GHz allocation for MetSat (space-to-Earth) from 200 MHz to 300 MHz of contiguous spectrum for the next generation of geostationary meteorological satellites. JMA supported the EUMETSAT proposal, since such an extension will be beneficial to the radio communication performance of meteorological satellites, particularly for the high-rate downlink of raw observation data by the next generation of geostationary meteorological satellites.

JMA requested the MIC to support the extension of this frequency bandwidth. The MIC fully acknowledged importance of MetSat in Japan and took the supportive position for MetSat at WRC-07.

The previous 18.1-18.3 GHz allocation for MetSat was extended as follows, which reflects JMA's request to the MIC;

- Region 1 (Europe, Africa and Russia): 18.1-18.4 GHz
- Region 2 (North America and South America): 18.0-18.3 GHz
- Region 3 (Asia and Oceania): 18.1-18.4 GHz

## 2.2 Agenda item 1.4

*“To consider frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000 taking into account the results of ITU-R studies in accordance with Resolution 228 (Rev.WRC-03).”*

In this agenda point, discussion was focused on the frequency-band sharing criteria between International Mobile Telecommunication 2000 (IMT-2000) and systems beyond IMT-2000 (refer to below as IMT-2000 & Beyond) and other radio communication services that already have frequency allocations in the relevant bands.

In August 2006, IMT-2000 & Beyond, Working Party 8F (WP8F) submitted a draft report to the International Telecommunication Union’s Radiocommunication Sector (ITU-R) on studies for sharing between other radio communication services and IMT systems operating in the 450-470 MHz band. The report said that no countries were using or planning to use this band for MetSat (space-to-Earth) at that time, and thus studies on sharing between IMT systems and MetSat (space-to-Earth) were not required.

However, JMA has been using the 468 MHz band to provide earthquake and tsunami warning information to users in Japan via the Japanese geostationary meteorological satellites, and will continue the service using the same band. JMA therefore explained to the MIC that it was necessary to correct the description in the draft report in order to reflect Japan’s current status and future plans for utilization of the 460-470 MHz band by Japanese geostationary meteorological satellites, and that sharing studies were necessary. The MIC requested WP8F to correct the description to reflect the actual status in Japan.

WRC-07 concluded to allocate the additional bands of 450-470 MHz, 470-806/862 MHz, 2300-2400 MHz and 3400-3600 MHz to IMT-2000 in all Regions. In Japan, while the bands of 450-470 MHz, 470-806 MHz, 2300-2400 MHz and 3400-3600 MHz are allocated additionally to IMT-2000, the MIC plans that the bands 698-806MHz and 3400-3600MHz will be the major utilization bands for IMT-2000.

## 3 JMA’s preparatory activities for WRC-11

WMO expressed its positions to protect and develop MetSat on WRC-11 Agenda items that were adopted after WRC-07. JMA supports the content in the document because it is described.

As preparatory activities for WRC-11, JMA will continue to pay attention to the discussion in working parties of ITU-R, especially in WP7C (Working Party for earth exploring satellite, meteorological aids and meteorological satellite services) and WP5B (Working Party for aeronautical and marine mobile services) that are closely related to JMA’s meteorological service such as meteorological radar observation, wind profiler radar observation and meteorological satellite. JMA will continue to request the MIC to understand and advocate the WMO positions as appropriate.

JMA will also continue preparatory activities for future WRC meetings regarding protection of the existing frequency bands and acquisition of the new frequency



bands necessary for MetSat through exchanging information with CGMS members as well as the WMO/CBS/SG-RFC.