

**STATUS OF JMA'S ACTIVITIES FOR WRC-2000 WITH  
REGARD TO RADIO FREQUENCIES FOR  
THE METEOROLOGICAL SERVICES**

The purpose of this document is to inform CGMS members of JMA's activities for the World Radiocommunication Conference (WRC-2000) which will be held in May 2000 to protect radio frequencies for the meteorological services.

The reallocation of frequencies for the Mobile Satellite Service (MSS) and the sharing of frequencies among the Meteorological Satellite (MetSat) Service, the Earth Exploration Satellite (EES) Service and MSS will be discussed in WRC-2000.

# **STATUS OF JMA'S ACTIVITIES FOR WRC-2000 WITH REGARD TO RADIO FREQUENCIES FOR THE METEOROLOGICAL SERVICES**

## **1 INTRODUCTION**

The World Radiocommunication Conference (WRC-2000) will be held in May 2000. The reallocation of frequencies for the Mobile Satellite Service (MSS) and the frequency sharing among the Meteorological Satellite (MetSat) Service, the Earth Exploration Satellite (EES) Service and MSS will be discussed in the WRC-2000.

JMA reports CGMS the summary of JMA's activities toward WRC-2000 regarding the protection of radio frequencies for the meteorological satellite and the earth exploration satellite, which are useful for meteorological activities.

## **2 JMA'S ACTIVITIES ON THE RADIO FREQUENCY MATTER IN JAPAN**

JMA is a member of the Telecommunications Technology Council (TTC), a consultative organization for the Ministry of Posts and Telecommunications (MPT), which is the Telecommunications Administration of Japan. JMA has joined in deliberations about space telecommunications services and science services including MetSat and EES services. JMA strongly maintained in the Council that the frequency band for meteorological activities should be protected and stressed the importance of the meteorological service in the world including sharing between MSS and MetSat service in the band 1670-1710 MHz.

JMA is a member of the "Working Group for WRC-2000" in Japan and JMA agreed in the Working Group about the protection of the frequency band for meteorological activities and the importance of the meteorological services in the world.

## **3 PREPARATION FOR WRC-2000**

### **3.1 MetSat Service**

#### **i) 137-138 MHz**

JMA fully recognizes the importance of the APT data for meteorological activities. JMA has been appealing to the MPT, for the protection of this frequency band in accordance with WMO Recommendations.

#### **ii) 1670-1710 MHz**

The S-VISSR receiving stations of GMS are operated at 1687.1MHz in the frequency band 1675-1690 MHz. JMA is planing to use the same frequency band 1687.1 MHz for the High Resolution IMAGER Data (HiRID) in MTSAT, which will be launched in 1999. JMA has requested MPT to propose the protection of this frequency band for MetSat Service in WRC-2000.

### **3.2 EES service**

The operation and future plan of EES service of Japan, provided by the National Space Development Agency (NASDA) in Japan are shown in Table 1. As the data obtained with these passive sensors are very useful for meteorological activities, JMA has appealed to MPT for the protection of the frequency bands 18.6-18.8GHz and above 61GHz in support of WMO activities.

In the frequency band above 71 GHz, the Telecommunications Administration of Australia has requested that the MPT cooperates with Australia to protect these frequency bands for EES service

forward the Asia Pacific Telecommunity (APT) Conference and the WRC-2000. JMA has been studying with MPT and NASDA how to deal with this matter in Japan.

Table 1 Operation and future plan of Earth Exploration Satellites in Japan

Satellite	Operation	Sensor	Frequency	Use
JERS-1	1992 ~ 1998	SAR	1275.0 MHz	Resource exploration
TRMM	1997~	PR	13.80 GHz	Vertical distribution of Precipitation
ADEOS-2	2000~2003 (plan)	AMSR	6.90 GHz 10.65 GHz  18.70 GHz 23.80 GHz 36.50 GHz  50.30 GHz 52.80 GHz 89.00 GHz	Sea surface temperature Rainfall, Sea surface wind speed Rainfall, Water vapor Sea ice Snow liquid water Temperature Temperature Rainfall,
EOS-PM1	2000~2006 (plan)	AMSR-E	6.90 GHz 10.65 GHz  18.70 GHz 23.80 GHz 36.50 GHz  89.00 GHz	Sea surface temperature Sea surface wind speed  Rainfall, Water vapor Sea ice, Snow Liquid water Rainfall, Snow equivalent
ALOS	2002~2005 (plan)	PALSAR	1270 MHz	Disaster monitoring
GCOM-B1	2005~2008 (plan)	AMSR2	6.90 GHz 10.65 GHz 18.70 GHz  23.80 GHz 36.50 GHz  50.30 GHz 52.80 GHz 89.00 GHz	Sea surface temperature Sea surface wind speed Rainfall,  Water vapor Sea ice, Snow Liquid water Temperature Temperature Rainfall