FUTURE PLAN ON MULTI-FUNCTIONAL TRANSPORT SATELLITES

This document reports future plan on Multi-functional Transport Satellites (MTSAT-1R/-2).
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Multi-functional Transport Satellite (MTSAT) was scheduled to be launched in summer of 1999 and to be operated in spring of 2000 as a successor to GMS-5. However, its launch did not succeed due to failure of launch vehicle.

Japan Meteorological Agency (JMA) and Japan Civil Aviation Bureau (JCAB) settled on a new plan to launch MTSAT-1R as a replacement of MTSAT in early 2003 and MTSAT-2 as the next one in 2004. Currently preparation has been progressing for operation of both satellites.

The operation plan of both satellites is shown in Attachment-1. MTSAT-1R will be operated from 2003. Meteorological mission of MTSAT-2 will start from 2008 after 3 years’ stand-by operation in geostationary orbit.

Functions of meteorological mission of MTSAT-1R including ground processing system changed from those of GMS-5 are as follows:

1. LRIT (Low Rate Information Transmission) is newly added to WEFAX to disseminate image data to SDUS (Small-scale Utilization Station);
2. Instead of S-VISSR of GMS-5, HRIT (High Rate Information Transmission) and HiRID (High resolution image data) transmission are introduced to disseminate image data to MDUS (Medium-scale Utilization Station).

Methods of image data dissemination will be changed during operation of MTSAT-1R and MTSAT-2. Transition plan of which is shown Attachment-1. There are two changes, one is from WEFAX to LRIT as planned in MTSAT and another is from HiRID to HRIT which is newly introduced. In the transition period of WEFAX to LRIT and HiRID to HRIT, image data will be disseminated by a time sharing method on each center frequency.

We will disseminate image data of original resolution such as 4km of infrared data and 1km of visible data by HRIT.
Plan of Satellite operation and data dissemination (Draft)

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WEFAX
WEFAX/LRIT
LRIT

S-VISSR
HiRID
HiRID/HRIT
HRIT