TIDAL/TSUNAMI DATA COLLECTION USING DATA COLLECTION SYSTEM OF MTSAT (MTSAT-DCS)

This paper reports on the current status and future plans of tidal/tsunami data collection using Data Collection System (DCS) of MTSAT-1R.

After the Indian Ocean Tsunami in December 2004, three new tidal/tsunami DCPs started transmission of observed data. Reporting intervals of three existing DCPs have been shortened so as to report increased number of data. More than 70 time-slots on five RDCP channels are occupied by DCPs which have been inactive for quite a long period. JMA is now requesting operators of these DCPs to return the time-slots and channels if the DCPs are no longer operated. In the long term, it could be one of practical solutions for JMA to allocate tidal/tsunami DCPs to some international channels of MTSAT-DCS.

In order to enhance user support, JMA established a website on MTSAT-DCS in April 2006. In addition, JMA plans to establish another website to show collected DCP data. JMA also plans to send collected DCP data by e-mail to DCP operators in 2007.

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1   INTRODUCTION

The Japan Meteorological Agency (JMA) has collected tidal/tsunami data using some regional DCP (RDCP) channels of Data Collection System of MTSAT-1R (MTSAT-DCS) and distributed the data to the DCP operators such as the Australian Bureau of Meteorology (BoM) and the Pacific Tsunami Warning Center (PTWC) in Hawaii via the Global Telecommunication System (GTS) of the World Meteorological Organization (WMO).   Since the Indian Ocean Tsunami in December 2004, the importance of close monitoring of the tidal/tsunami data against tsunami disasters has increased.   DCS has been considered as one of measures to collect tidal/tsunami data in the establishment of the Indian Ocean Tsunami Warning System (IOTWS).

JMA will continue to collect tidal/tsunami data using MTSAT-DCS as part of JMA's supportive actions toward the establishment of the IOTWS as JMA announced at the UN World Conference on Disaster Reduction (WCDR) held in Kobe, Japan, in January 2005.

2   STATUS OF THE COLLECTION OF TIDAL/TSUNAMI DATA

After the Indian Ocean Tsunami, three new tidal/tsunami DCPs at Legaspi, Sibolga and Colombo started their operations, and the reporting intervals of three existing DCPs at Yap, Malakal and Manila have been shortened. As of the end of August 2006, MTSAT-DCS collects data of 23 tidal DCPs on three channels.

3   PROSPECTS FOR COLLECTION OF TIDAL/TSUNAMI DATA

More than 70 time-slots on five RDCP channels are occupied by DCPs which have been inactive for quite a long period. For effective use of limited time-slots on RDCP channels of MTSAT-DCS, JMA is requesting operators of these DCPs to return the time-slots and channels if the DCPs are no longer operated.

In the long term, it is anticipated that the RDCP channels of MTSAT-DCS will be fully used if the demands for collecting tidal/tsunami data using MTSAT-DCS will continue to grow. It could be one of the solutions to allocate tidal/tsunami DCPs to some international channels of MTSAT-DCS by reviewing the above-mentioned unused channels for a long time.

4   USER SUPPORT VIA THE INTERNET

JMA   set   up   a   website   of   MTSAT-DCS   in   April   2006 (http://www.jma.go.jp/jma/jma-eng/satellite/dcs.html).   Users can obtain information on MTSAT-DCS, including the application form for the use of RDCP channels of MTSAT-DCS.

JMA plans to start two new services of MTSAT-DCS in 2007, in addition to the current data distribution via the GTS. One is to run a web site to show collected DCP data, and the other is to send collected data by e-mail to the DCP operators. These services could serve as a backup/auxiliary measure for the current data distribution via the GTS; they may also be able to assist potential DCP operators (e.g. organs other than National Meteorological and Hydrological Serviecs (NMHSs)) who are not directly connected to GTS, in operating new DCPs. JMA is currently preparing for procurement and policies for the above two services.