

# **RSMC Tokyo Activity Report for 2014**

## **Executive summary**

This document outlines activities conducted by the Regional Specialised Meteorological Centre (RSMC) Tokyo to support environmental emergency response (EER) and atmospheric backtracking in 2014. It highlights exercises and routine tests, operational issues and challenges, and plans for 2015. Major activities are summarized below.

- i) In May, RSMC Tokyo established an SFTP connection to the International Data Centre (IDC) of the Comprehensive nuclear-Test-Ban Treaty Organization (CTBTO). Data transmission service via the connection began in June.
- ii) RSMC Tokyo participated in the ConvEx-2D exercise conducted by the World Meteorological Organization (WMO) and the International Atomic Energy Agency (IAEA) in November, and also conducted monthly internal training sessions.
- iii) In November, RSMC Tokyo examined email and fax communication with registered organizations in WMO Regional Association II (RA II). The results were presented to RSMCs Beijing and Obninsk and the WMO Secretariat.
- iv) As part of activities engaged in by the RA II Expert Group on Operational Forecasting (EG-OF), the Theme Leader in Emergency Response Activities (TL-ERA) Masami Sakamoto of RSMC Tokyo developed concise guidance material on the Environmental Emergency Response (EER) service for distribution to all RA II members. TL-ERA and the WMO Secretariat conducted a questionnaire survey to gauge levels of interest in the service among non-registered members in RA II. These efforts helped the WMO Secretariat attain an additional registration for the EER service.

## **1. Introduction**

In July 1997, the Japan Meteorological Agency (JMA) was designated by the World Meteorological Organization (WMO) as a Regional Specialized Meteorological Centre (RSMC) supporting environmental emergency response (EER) activities. RSMC Tokyo is responsible for providing atmospheric transport modelling (ATM) products in response to requests from the International Atomic Energy Agency (IAEA) and Members of the WMO Regional Association II (RA II). In such work, RSMC Tokyo responds jointly with RSMCs Beijing and Obninsk.

Based on the Manual on the Global Data-Processing and Forecasting System (WMO No. 485), RSMC Tokyo provides atmospheric backtracking products in response to requests for support from the International Data Centre (IDC) of the Comprehensive nuclear-Test-Ban Treaty Organization (CTBTO).

At the 15th session of RA II held in Doha in December 2012, it was decided that Emergency Response Activities (ERA) would be launched within the region as part of activities engaged in by the Expert Group on Operational Forecasting (EG-OF). Mr. Masami Sakamoto of RSMC Tokyo was appointed as the Theme Leader in Emergency Response Activities (TL-ERA) with responsibility for (a) monitoring the provision of products and services, and (b) advising on evolving requirements for ERA operational systems and services.

## **2. Contact information**

RSMC Tokyo  
Japan Meteorological Agency (JMA)  
1-3-4 Otemachi, Chiyoda-ku,  
Tokyo 100-8122, Japan

Business/operational contact:  
Head, Office of International Affairs,  
Planning Division, Administration Department

Tel.: +81 3 3211 4966

Fax: +81 3 3212 2057

Email: [iao-jma@met.kishou.go.jp](mailto:iao-jma@met.kishou.go.jp) (business contact)  
[eer-tokyo@met.kishou.go.jp](mailto:eer-tokyo@met.kishou.go.jp) (technical contact)  
[era-tokyo@met.kishou.go.jp](mailto:era-tokyo@met.kishou.go.jp) (operational contact for IAEA-WMO EER products)  
[ctbto@met.kishou.go.jp](mailto:ctbto@met.kishou.go.jp) (operational contact for CTBTO-WMO backtracking products)

## **3. Exercises and routine tests**

### **3. i. ConvEx-2D with IAEA/IEC**

RSMC Tokyo participated in the ConvEx-2D exercise conducted by WMO and IAEA on 25 November. In response to the request from IAEA's Incident and Emergency Centre (IEC), RSMC Tokyo distributed the standard products and issued a joint statement in conjunction with RSMCs Beijing and Obninsk.

While the products were being uploaded to the common web server at RSMC Montréal, the connection timed out at the SSH host server. As a backup measure, a manual upload procedure was examined and found to work.

There was also a problem when RSMC Obninsk uploaded its products to the common web server at RSMC Tokyo. As a stopgap measure to address the issue, the products were emailed to RSMC Tokyo and uploaded manually from Tokyo. To solve the problem permanently, RSMC Tokyo asked Obninsk to check the relevant IP addresses because IP filtering is performed for the Tokyo server as a security measure. The issue was resolved when RSMC Obninsk's IP addresses were updated on 8 December.

### **3. ii. Monthly internal training**

RSMC Tokyo conducted monthly internal training to maintain its operational capability for the emergency response to nuclear accidents and for the atmospheric backtracking.

### **3. iii. Other issues**

A quarterly test for RA II had been scheduled for 15 May. However, the exercise was canceled at a sudden notice on the exercise day due to a procedural problem on the IAEA side.

## **4. Operational issues/challenges**

### **4. i. Data transmission procedure for IDC/CTBTO**

At the ET-ERA meeting held in Washington in October 2013, Dr. Monika Krysta of IDC/CTBTO asked WMO RSMCs to update their data transmission measures for the ATM backtracking service. IDC updated its data accumulation server, and the data transmission protocol was changed from password-protected FTP to SFTP. RSMC Tokyo accordingly established an SFTP connection to IDC and began operational data provision through the SFTP connection on 11 June.

### **4. ii. Email and fax test within RA II**

In November, RSMC Tokyo conducted an email and fax communication test within RA II in line with the technical memorandum issued by RA II RSMCs. The results showed that 28 out of 29 registered organizations were accessible, and that 25 organizations were able to receive email appropriately. The test results were shared with RSMCs Beijing and Obninsk and the WMO Secretariat.

### **4. iii. ERA activities in RA II**

As part of activities conducted by RA II's EG-OF, TL-ERA Masami Sakamoto of RSMC Tokyo developed concise guidance material on the EER service. The resource was reviewed by the chair and co-chair of ET-ERA, representatives of RSMCs Beijing and Obninsk, RA II Member experts, and the WMO secretariat Regional office for Asia and South-West Pacific (RAP) and Data-Processing and Forecasting Systems (DPFS) office. The material was distributed to all RA II Members on 7 October as reference for an RA II questionnaire survey and a letter exchange by the DPFS office, both of which were aimed at encouraging Members to register their contact information for EER. As a result of the cooperative efforts by RA II and the DPFS office, an additional registration from Kuwait was obtained. The permanent representative (PR) of the State of Kuwait sent the relevant contact information to the WMO Secretariat.

TL-ERA and the RAP conducted a questionnaire survey to gauge interest in the EER service among non-registered Members in RA II. The questionnaire was sent to such Members by the director of the RAP on 8 October. The deputy director general of the Maldives meteorological service responded, indicating that the Maldives meteorological service did not currently have an immediate interest in the service.

## **5. Operational atmospheric transport model status**

The status of RSMC Tokyo's operational atmospheric transport model is described in Annex 4 of WMO Technical Documentation No. 778 (WMO/TD-No. 778).

## **6. Other activities regarding ATM product development**

On 20 January, IDC/CTBTO Director Wilbur Bell visited JMA and took part in a discussion on the atmospheric backtracking service provided to IDC by WMO RSMCs.

On 16 October, Hong Kong Observatory Assistant Director K. C. Tsui, who is responsible for nuclear disaster prevention procedures, visited JMA. He met the Director General of JMA's Forecast Department and discussed EER operation in RA II with RSMC Tokyo staff.

On 6 November, UK Met Office delegates Dr. Ian Lisk and Dr. Matthew Hort visited JMA, where they discussed the EER operation and the ATM modelling with RSMC Tokyo staff.

## **7. Plans for 2015**

RSMC Tokyo remains committed to fulfilling its responsibility as an RSMC providing ATM products as necessary. The Centre will participate in international exercises planned for 2015 to maintain its nuclear environmental emergency capabilities in response to requests from IAEA/IEC, CTBTO/IDC and WMO RA II Members.