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COORDINATION GROUP ON
NUCLEAR EMERGENCY RESPONSE ACTIVITIES

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**TECHNICAL ASPECTS OF THE CTBTO-WMO RESPONSE SYSTEM,
NEXT STEPS**

*(Submitted by CTBTO Preparatory Commission, Provisional Technical
Secretariat)*

Summary and purpose of document

This document contains a proposal of the PTS regarding the next steps towards an operational CTBTO-WMO response system and a proposal for a CTBTO-WMO exercise in 2008. The entry into provisional operations of the response system is proposed for September 1st, 2008. The next exercise should take place in October 2008.

Proposed Action

The meeting is invited to comment on and to consider the PTS proposal, including the proposed timelines.

Implementation of the CTBTO-WMO response system into CTBTO/PTS Provisional Operations

Making reference to the respective provisions in the WMO Manual for the Global Data Processing and Forecasting System, and the letter from the WMO Secretary General to the CTBTO Executive Secretary dated February 13, 2008, the PTS plans to put into provisional operations the response system on Monday, September 1st, 2008. From this day onward, requests for support in the case of all level-5 radionuclide detections in the particulate network, and all other radionuclide detections the PTS considers as anomalous, will be sent to the following nine centres:

RSMC Beijing (China)
RSMC Exeter (United Kingdom)
RSMC Melbourne (Australia)
RSMC Montreal (Canada)
RSMC Obninsk (Russian Federation)
RSMC Tokyo (Japan)
RSMC Toulouse (France)
NMC Offenbach (Germany)
NMC Vienna (Austria)

Point of Contact from PTS side:

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International Data Centre
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Technical Contact: Specified in the Notification Mail Messages
24-hours contact: None foreseen during provisional operations at PTS

Request for support will normally be sent out via e-mail by the PTS to the operational point of contact of the centre specified in advance. The Centres are asked to confirm receipt as soon as feasible. In case the receipt is not acknowledged within 3 hours, additional fax messages will be sent to the shift supervisor at the centre.

In line with the agreements, the following other provisions will apply:

- The Centres are asked to submit their computations as fast as technically feasible, but in any case within 24 hours
- Every participating RSMC/NMC that is temporarily unable to honour the request should notify CTBTO/PTS and the WMO Secretariat as soon as possible, but in any case within 24 hours.
- PTS requests for support, although containing no information on the concrete measurement scenario, shall be kept confidential

- Unless otherwise agreed, the computations will follow the technical specifications as laid down in the GDPFS manual.

Technical support: The PTS, within its available resources, will offer technical support to all RSMCs and NMCs that have confirmed participation to the system, in order to facilitate the correct technical implementation of the agreed procedures. This support includes bilateral response tests and model inter-comparisons.

CTBTO-WMO Exercise 2008

In line with the provisions laid down in the GDPFS manual, the PTS will conduct regular system tests. These tests will comprise (a) large-scale exercises as well as (b) unannounced system tests.

(a) Atmospheric backtracking exercises between CTBTO/PTS and WMO Centres are foreseen once every year. The next exercise is planned to take place in October 2008. Similar to the exercise in 2007, the scenario shall be triggered by a real seismic event, and may last for several days. A release scenario regarding the assumption of immediate venting of radioxenon isotopes from a hypothetical one-kiloton equivalent nuclear explosion is under consideration. For the WMO Centres, the requests for support will only address the standard backtracking computations, irrespective of any other scenario and source assumption. Regarding participation, the requests will be sent to the participants to the response system.

Technical cooperation: As agreed, the PTS will share the results of system tests and exercises, including all underlying assumptions and all technical results, with the participants.

(b) Unannounced system tests: From 1st September 2008 onwards, the PTS will perform one unannounced system test per quarter. These tests will be limited to one request for support, which will be sent to the participating centres.

Summary

The CTBTO-WMO response system has now been formally approved and was successfully tested in December 2007. The PTS therefore proposes to implement this system into its provisional operations on 1st September 2008. A large-scale exercise between the PTS and the WMO Centres is planned to take place in October 2008. Unannounced, limited-scope system tests are foreseen to take place every quarter, commencing in Q4/2008.

References

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