

**WORLD WEATHER RESEARCH PROGRAMME INCLUDING THE
THORPEX PROGRAMME
ER 1 AND ER 6**

SUMMARY

ISSUE TO BE DISCUSSED:

CBS collaboration with WWRP and WWRP-THORPEX

DECISIONS/ACTIONS REQUIRED:

To review and advise on activities and plans of the World Weather Research Programme (WWRP) including THORPEX relevant to the Commission, including the collaboration with CAS, the THORPEX International Steering Committee, and the Joint Science Committee of the WWRP.

REFERENCE:

Abridged Final Report with Resolutions of the Sixtieth Session of the Executive Council (WMO-No. 1032), general summary, paragraphs 2.4.13, 3.1.13 to 3.1.28 and 3.5.3.9

CONTENT OF DOCUMENT:

Draft text for inclusion in the general summary of CBS-XIV

RELATED DOCUMENT FOR INFORMATION:

CBS-XIV/INF. 11.4

DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY OF CBS-XIV

11.4 WORLD WEATHER RESEARCH PROGRAM (WWRP) INCLUDING THE THORPEX PROGRAMME (*agenda item 11.4*)

11.4.1 The Commission recognized the progress of CAS's WWRP-THORPEX programme to deliver the THORPEX Interactive Grand Global Ensemble (TIGGE) archive, to conduct research that identifies areas where forecast skill and confidence might be approved by the multi-model approach and to demonstrate the concept of a multi-centre Global Interactive Forecast System (GIFS) by delivering tropical cyclone tracks in real-time. The Commission further noted the encouragement of TIGGE activities by EC-LX, including demonstrations of the potential value of GIFS in operational forecasting aimed at reducing human suffering, mitigate costs and deliver benefits and thus recommended:

- (a) Regional, CBS, and CAS-related entities in the WMO collaborate with the THORPEX TIGGE-GIFS Working Group to plan and execute a series of GIFS-TIGGE Forecast Demonstration Projects (FDPs) that are designed to benefit Members in the developing world;
- (b) The first GIFS-TIGGE FDPs should begin with the prediction of tropical cyclone tracks, since EC-LX urged continuation of this real-time programme. The Commission encouraged the participation of the relevant TIGGE data providers, TIGGE archive centres, Tropical Cyclone Warning Centres (TCWCs) and Regional Specialized Meteorological Centres (RSMCs including RSMCs with activity specialization in Tropical Cyclones) in executing such GIFS-TIGGE FDPs, which will require training and the development of a common set of products;
- (c) The subsequent GIFS-TIGGE FDPs should focus on improving prediction of heavy rainfall and other problems of high priority interest to the needs of Members, such as improving food security;
- (d) The WMO Secretariat, THORPEX and the TIGGE data providers need to work to develop a suitable data policy that will allow these GIFS-TIGGE FDPs to proceed in order to reduce human suffering, mitigate costs and deliver benefits;
- (e) For the longer term, CBS experts should work with the THORPEX community to develop a way forward with the GIFS vision.

11.4.2 The Commission urged participation of operational modelling centres to contribute to the TIGGE LAM (Limited Area Modelling) archive to enable researchers to test whether the benefits of the TIGGE approach extends to high resolution modelling.

11.4.3 The Commission noted the request of EC-LX to the Secretary-General and Members to support the efforts of THORPEX Africa to conduct research and improve both operational prediction and society's capacity to utilize weather information. The Commission urged Members within Africa to provide comments on the THORPEX Africa Science and Implementation Plans and to name points of contact for participation by their NMHSs. The Commission urged Members within and outside of Africa to support the operational components of the THORPEX Africa Plan.

11.4.4 The Commission gratefully acknowledged the activities of the WWRP, especially those activities that resulted in the transfer of state-of-the-art research activities directly into operational practices, such as the MAP D-PHASE FDP and the Beijing 08 FDP. The Commission also noted the planned cooperation between CBS and CAS-WWRP-THORPEX on TIGGE-GIFS, the Joint Committee between CAS and CBS on Nowcasting, planned cooperation between CBS and CAS

on verification and the cooperation between CBS and CAS that result in operational training activities often coinciding with CAS Research Workshops, Symposium and Conferences. The Commission recalled that EC-LX had encouraged links between the CAS's WWRP effort and operational forecasting including developing prototype forecasting systems from a variety of WWRP research programmes, development of operational products based on research results and operational support of research field campaigns. Thus, the Commission requested appropriate experts in CBS to review the WWRP Strategic Plan and provide written comments from the viewpoint of operational interactions in time for CAS-XV (November 2009). In addition, it was requested that a liaison person be assigned from CBS to the WWRP's Joint Science Committee (JSC) and the Commission urged that the JSC work with the CAS and CBS Management Committees to identify such an individual, preferably the Chair of the OPAG on DPFS.

11.4.5 The Commission noted that a list of major operationally-directed recommendations was made by the Sixth WMO International Workshop on Tropical Cyclone (IWTC VI) in order to improve the prediction and public response to tropical cyclones (WMO/TD-No. 1383). The Commission encouraged the Operational Centres, RSMCs with activity specialization in Tropical Cyclones, and TCWCs to consider and, where appropriate, to act upon these operationally-directed recommendations.

11.4.6 The Commission noted the EC-LX endorsement and request for broad WMO involvement in a technical workshop focused on issues associated with the changing environment in NHMSs. This changing environment includes a growing tendency for forecasting systems run locally on workstations and local networks, demanding new user requirements, an increased reliance on visualization, and an evolving role of human forecasters with pressure for increased automation. The Commission requests CBS-related entities to partner with CAS-WWRP in the planning, implementation, and support of such a workshop, which should have a strong focus on Members from developing nations.