

COORDINATION WITH OTHER ACTIVITIES OF THE WMO TROPICAL CYCLONE PROGRAMME

(Submitted by the WMO Secretariat)

Summary and Purpose of Document

This document provides information on activities carried out under the WMO Tropical Cyclone Programme (TCP) during the inter-sessional period after the forty-eighth session to assist the Committee in its consideration of coordination within the TCP. TCP's collaborations with its partner programmes of WMO will also be presented. (see Appendix).

ACTION PROPOSED

The Committee is invited to:

- (a) Review the activities carried out under the TCP since its forty-ninth Session (Yokohama, Japan, 21 - 24 February 2017) and the proposals for the future, which are indicated in Appendix to this document or otherwise reported to the session; and,
- (b) Consider what further measures, if any, may be taken to strengthen coordination between its own activities and those conducted under other parts of the TCP.

Appendices:

- A: Activities carried out under the TCP since its forty-ninth session
- B: Draft texts for inclusion in the final report of the session

APPENDIX A

ACTIVITIES CARRIED OUT UNDER THE TROPICAL CYCLONE PROGRAM SINCE ITS FORTY-NINTH SESSION

1. INTRODUCTION

1.1 The WMO Tropical Cyclone Programme carries out its activities in accordance with decisions/resolutions by Congress and Executive Council and Regional Associations. The resolutions and decisions at the recent Congress (Cg-17) with particular relevance to the Programme may be found in the ANNEX I: 1) Tropical Cyclone Coordination and Services (Paragraphs from 3.1.63-3.1.99 of the Abridged final report with resolutions of the Seventeenth World Meteorological Congress (Cg-17), Geneva, 25 May–12 June 2015 (WMO-No. 1157).

1.2 The 69th session of the WMO Executive Council (EC-69) made a decision (Decision 3 of EC-69), on development of WMO Global Multi-Hazard Alert System (GMAS) requesting all technical programmes to contribute to GMAS development. The Decision 3 may be found in the ANNEX I: 2) Abridged final report with resolutions and decisions of the EC-69.

2. PROGRAMME IMPLEMENTATION

2.1 The TCP Programme was implemented in two components: a general component concerned with collective issues such as methodology and transfer of technology, and a regional component devoted to the activities of the five regional tropical cyclone bodies.

2.2 A list of the events organized or co-sponsored under the Programme during the period from March 2017 is given in ANNEX II.

2.3 The web version of the Global Guide to Tropical Cyclone Forecasts has been reformatted and printable version (in PDF format) has been available for download (<https://www.wmo.int/cycloneguide/>) since May 2017.

3. COOPERATION WITH OTHER ORGANIZATIONS

3.1 There has been close cooperation and collaboration with the Economic and Social Commission for Asia and the Pacific (ESCAP), the International Strategy for Disaster Reduction (ISDR) Secretariat, International Civil Aviation Organization (ICAO), Japan International Cooperation Agency (JICA), International Federation of Red Cross and Red Crescent (IFRC) and Secretariat of the Pacific Regional Environment Programme (SPREP) on a variety of matters of common concern. The main items include ESCAP's co-sponsorship of the Typhoon Committee and the Panel on Tropical Cyclones, as well as the ISDR Secretariat in the context of the DRR of TCP.

3.2 As part of the cooperation between WMO and the International Civil Aviation Organization (ICAO), Tropical Cyclones Regional Specialized Meteorological Centres (TC RSMCs) and one Tropical Cyclone Warning Centre (TCWC) are designated as ICAO Tropical Cyclone Advisory Centres (TCAC) by ICAO Regional Air Navigation Agreements. Those TCACs listed below provide specialized tropical cyclone warning services for the aviation community:

RSMC/TCWC

Darwin (Australia)
Honolulu (USA)
La Réunion (France)
Miami (USA)
Nadi (Fiji)
New Delhi (India)

Area(s) of responsibility

South-eastern Indian Ocean, South-western Pacific Ocean
Central North Pacific
South-western Indian Ocean
North Atlantic, Caribbean, Eastern North Pacific
Southern Pacific
Bay of Bengal and the Arabian Sea

Tokyo (Japan)

Western North Pacific, including the South China Sea

4. ACTIONS FOR 2018 AND BEYOND

4.1 Major activities of TCP planned for 2018 in the global and regional components are set out below in summary form:

General component:

a) Training and Capacity Development

- Enhancement of the collaboration with other WMO Programmes in implementing TC training courses and workshops.

b) Support to Operational Forecasting

- Maintaining the Tropical Cyclone Forecaster Web Site with the support of Hong Kong, China.
- Maintaining the reformatted Global Guide to Tropical Cyclone Forecasts, with possible migration to Hongkong China.

c) Application of Research and Development (R&D)

- Implementation of the TCP/WWRP joint projects;
 - TLFDP in Typhoon Committee region, including EXOTICA.
 - Research and Development Project on the Understanding and PreDiction of Rainfall Associated with landFalling Tropical cyclones (UPDRAFT).
- Organizing 9th International Workshop on tropical Cyclone Landfall Processes (Jointly with WWRP, Honolulu, Hawaii, USA, 3 – 7 December 2018).

d) Global Coordination

- Development of Tropical Cyclone forecaster competency.
- Development of impact-based tropical cyclone forecasting and warning products.
- Coordinate to contribute to development of WMO GMAS.
- Plan to organize a global technical coordinating meeting on issues related to tropical cyclone forecasting and warning coordination.

Regional component:

- a) 50th session of the ESCAP/WMO Typhoon Committee (Hanoi, Vietnam, 20-24 February 2017)
- b) 40th session of RA IV Hurricane Committee (Fort de France, Martinique, France, 9 – 13 April 2018)
- c) RA IV Workshop on Hurricane Forecasting and Warnings and Public Outreach (Miami, Florida, USA, 26 February – 9 March 2018)
- d) 45th session of the WMO/ESCAP Panel on Tropical Cyclones (venue and dates to be determined)
- e) 17th session of the RA V Tropical Cyclone Committee for the South Pacific and Southeast Indian Ocean (Noumea, New Caledonia, France, 23 – 27 July 2018)
- f) Forecaster Attachment Trainings in RSMC New Delhi, RSMC Tokyo and Indian Institute of Technology Delhi, RSMC Miami, and RSMC La Reunion (dates to be determined).

4.2 In more general terms:

- Activities for the implementation of the Tropical Cyclone Programme section of the WMO Strategic Plan;
- Continued activities for the implementation of the Regional Cooperation Programmes, Technical Plans and other work programmes of the regional tropical cyclone bodies;
- Actions following decisions made by the Seventeenth WMO Congress (Cg-17), the Executive Council, the Regional Associations concerned and the regional tropical cyclone bodies.

TROPICAL CYCLONE COORDINATION AND SERVICES

1) Tropical Cyclone Coordination and Services (Paragraphs from 3.1.63-3.1.99 of the Abridged final report with resolutions of the Seventeenth World Meteorological Congress (Cg-17), Geneva, 25 May–12 June 2015 (WMO-No. 1157)

Downloadable at: http://library.wmo.int/pmb_ged/wmo_1157_en.pdf

2) Abridged final report with resolutions and decisions of the 69th session of the Executive Council (EC-69), Geneva, 10 – 17 May 2017 (WMO-No. 1196)

Downloadable at https://library.wmo.int/opac/doc_num.php?explnum_id=3645

ANNEX II

TCP EVENTS DURING THE INTERSESSIONAL PERIOD

During the inter-sessional period from March 2016, the following events were organized or co-sponsored under the Tropical Cyclone Programme:

Please refer to <https://www.wmo.int/pages/prog/www/tcp/Activities.html>

APPENDIX B
DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT OF THE SESSION

1. The Committee was presented about activities under, and those requiring coordination through, TCP. It appreciated the comprehensive presentation, and thanked WMO support to the Committee.
2. The Committee was informed by the WMO Secretariat that the EC69 made a decision about development of WMO Global Multi-Hazard Alert System (GMAS), requesting all WMO technical programmes to contribute to GMAS development.
3. The Committee was informed that the Global Guide to Tropical Cyclone Forecasts has been reformatted with more readable and easily printable format. It can be downloaded at <https://www.wmo.int/cycloneguide/>.
4. The Committee was informed that the 9th International Workshop on Tropical Cyclones (IWTC-IX) will be held in Honolulu, Hawaii, USA, 3-7 December 2018. The Workshop is intended to aggregate researchers and forecasters in tropical cyclones to interact among them and exchange research results and operational requirements between research and operational communities. Members of the Committee are invited to utilize the opportunity to send their experts and forecasters to exchange and share knowledge and experience with others.
5. The Committee was informed that TCP activities during the inter-sessional period were mainly focused on following aspects:
 - Training and Capacity Development
 - Support to Operational Forecasting
 - Global and Regional Coordination of Forecasting Services
 - Support to DRR endeavours associated with tropical cyclones
6. The Committee noted TCP's plan to organize a global technical coordinating meeting on issues related to tropical cyclone forecasting and warning coordination, hopefully back-to-back with IWTC-IX.
7. The Committee was informed that collaborative efforts were made by the TCP and WWRP for promoting application of research outcomes to operational forecasting within the framework of the Typhoon Committee to implement the Typhoon Landfall Forecast Demonstration Project (TLFDP) including EXOTICCA (Experiment on Typhoon Intensity Change in the Coastal A), and the Research and Development Project of Understanding and PreDiction of Rainfall Associated with landFalling Tropical cyclones (UPDRAFT).