

Proposed Draft WMO Update and Coordination with other activities of the WMO Tropical Cyclone Programme

Item 18 of Provisional Agenda – WMO

(Submitted by WMO Secretariat)

ACTION REQUIRED:

The Committee is invited to:

- a. Review the activities carried out under the TCP since its fifty-seventh session (Manilla, Philippines, February 2025)
- 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.

APPENDIX A: DRAFT TEXT FOR INCLUSION AT SESSION REPORT

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DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

WMO UPDATE AND COORDINATION WITH OTHER ACTIVITIES OF THE WMO TROPICAL CYCLONE PROGRAMME (agenda item 18)

1. The Committee was informed by the WMO Secretariat of the relevant resolutions from WMO constituent bodies, including:

- a. **Early Warning for All Initiative**

[Resolution 1 \(EC-79, June 2025\)](#) - *Observations of the Executive Council on progress with the implementation of the WMO Road Map for the Early Warnings for All Initiative*

Endorses the procedure followed for the development of the proposed amendments to the Technical Regulations (section 6 on Early Warnings Services)

[Resolution 1 \(Cg-Ext\(2025\), October 2025\)](#) - *Regulatory actions related to early warning service*

Cg adopted the amendment to the Technical Regulations (WMO-No. 49), Volume I, (Section 6 – Early Warning Services in Part IV – Meteorological, Hydrological and Climatological Services) as a commitment by all WMO Members to their responsibilities in providing early warning services, effective 1 January 2027;

Requested SERCOM to expedite the development of a guide on early warning services and related training material to assist Members in achieving compliance with the amended technical regulations

- b. **Modification to the Strategic and Operational Plan 2026-2027**

[Resolution 2 \(EC-Ext\(2025\), October 2025\)](#) - *Executive Council's Task Force for development of recommendations for modification to the Strategic and Operating Plans for 2026–2027 as a result of the ongoing liquidity challenges of WMO*

As a result of the ongoing liquidity challenges of WMO, EC established a Task Force to:

- develop financial scenarios;
- prepare proposals for prioritization or deferrals of components of the Strategic and Operating Plans during the remainder of the 19th Financial Period;
- develop recommendations for modification to the Strategic and Operating Plans for 2026–2027.

EC requested the presidents of regional associations (RAs) to ensure timely and continuing consultation with Members in their respective regions.

- c. **Regional Association II**

Resolution 2 (RA II-18(I)) – *RA II Operating Plan 2025–2027*

Explicit linkages to projects and partners

Resolution 3 (RA II-18(I)) – *Implementing the Early Warnings for All (EW4All) initiative in Asia*

Creation of an RA II TT-EW4All, integrate the WMO EW4All Roadmap into the RA II Operating Plan

Resolution 6 (RA II-18(I)) – *Regional Partnership Strategy*

Explicit linkages to TC and PTC, Regional Centres, other partners

Resolution 7 (RA II-18(I)) – *RA II Research Priorities 2025–2027*

Resolution 8 (RA II-18(I)) – *Education and Training*

Decision 6 (RA II-18(I)) – **Artificial Intelligence (AI) and Machine Learning (ML) Application in RA II**

d. **Regional Association V**

Resolution 3.1/1 (RA V-19(I)) – **RA V Priorities for 2025–2027** → MHEWSs, incl. CAP, IBFWS, EW4All; hydrological and marine services; WIGOS, WIS, and WIPPS

Resolution 3.2/1 (RA V-19(I)) – **RA V Operating Plan (Work Programme) 2025–2027**

Explicit linkages to projects and partners

Resolution 4.1/1 (RA V-19(I)) – **Implementing the EW4All initiative in RA V**

Creation of an RA V TT-EW4All, integrate the WMO EW4All Roadmap into the RA V Operating Plan

Resolution 5.1/1 (RA V-19(I)) – **WMO engagement with the regional UN System entities, regional organizations, development partners, and other bodies**

Resolution 5.2/1 (RA V-19(I)) – **Education and Training**

Explicit linkages to Regional Training Centres (RTCs) and partners

2. TCP activities during the inter-sessional period were highlighted as follows, and WMO Secretariat informed that all the documents are available via the [Tropical Cyclone Programme \(TCP\)](#)

a. **Training and Capacity Development**

Workshops on TC Forecasting and Warning at RSMC Miami, Florida, USA, from 7-11 April 2025, and at RSMC La Reunion, France, 22 to 26 September 2025.

RSMC La Reunion co-organized the sixth Miniforum on Tropical Cyclone Outlook in the Southwest Indian Ocean for humanitarian agencies (online, 31 October 2025)

RSMC attachment trainings for tropical cyclones in New Delhi, India (14-25 July 2025), and in Tokyo, Japan (13-22 January 2026).

b. **TCP regional bodies sessions were conducted as follows:**

RA IV Hurricane Committee (HC-47, El Salvador, 31 March-3 April 2025) (HC-48 is planned in Mexico City, Mexico, 2-5 March-3 April 2026, back-to-back with the meeting of the Regional Subprogramme Management Team (RSMT) of the Severe Weather Forecasting Programme (SWFP) for Caribbean).

RA V Tropical Cyclone Committee for the South Pacific and Southeast Indian Ocean: RAV TCC-Ext2025, online

RA I Tropical Cyclone Committee for the Southwest Indian Ocean: RAI TCC-26, Seychelles, 6-10 October 2025.

c. **Global technical guidance and coordination – Advisory Group on Tropical Cyclones**

The main objective of this Group – subsidiary body of SERCOM and the Standing Committee on DRR - is to provide technical guidance and coordination in support of the delivery of globally consistent tropical cyclone-related services. The work includes updating regulations, improving coordination among tropical cyclone centers, and fostering engagement between operational and research communities.

It is a very active Group, meeting twice a year. The working documents and final reports of the AG-TC meetings are available here: [Advisory Group on Tropical Cyclones](#)

Activities:

Following-up and supporting the materialization of the technical recommendations from the International Workshop on Tropical Cyclones (IWTC-10, Bali, Indonesia, 5-9 December 2022)

- Best-Track parameters and format
- AI in TC forecasting

- Rainfall forecasting

RSMC Compliance review – completed – processed to be submitted to the fourth session of the Commission for Observation, Infrastructure and Information Systems (INFCOM-4, November 2026)

TC names worldwide

Pre-planning for **IWTC-11**

Other technical matters:

APIs for TC products; TC Probabilistic Forecast Products; TC Standardized Verification.

3. The 11th International Workshop on Tropical Cyclones (IWTC-11) co-organized by TCP and WWRP will be conducted in Shanghai, China, from 16 to 20 November 2026. The IWTC is a quadrennial forum for tropical cyclone community (both researchers and forecasters) to discuss together all aspects related to tropical cyclones with particular focus on track, intensity, structure, related hazards, and societal impacts.

The theme is “Harnessing new technologies, sciences and services toward a more TC resilient society”.

The table below shows the IWTC-11 topics and sub-topics agreed by the International Committee:

Topic 1	New technologies for TC observation and analyses Subtopics: a) Emerging satellite sensors b) Opportunities from airborne, seaborne, and ground-based observations c) Observation-based analysis techniques
Topic 2	New technologies for TC research and prediction Subtopics: a) Advancements in Physics Based Numerical Modelling b) Advancements in Artificial Intelligence / Machine Learning based Modelling c) New Data Assimilation Techniques d) New Techniques in Understanding Predictability
Topic 3	Research to operations: TC genesis, track, intensity, and structure Subtopics: a) External factors b) TC dynamics c) Understanding and predicting rapid changes in TC behavior
Topic 4	TC variability beyond the synoptic scale Subtopics: a) Sub-seasonal tropical cyclone research and prediction b) Seasonal to multi-annual tropical cyclone research and prediction c) Observed tropical cyclone trends, variability and future projections
Topic 5	TC hazards and impacts, including probabilistic communication Subtopics: a) Wind (sustained wind and gust) and tornadoes b) Rainfall and flooding c) Storm surge and coastal inundation d) Lessons and good practices of working with DRR and other agencies

Three Special Focus Special (SFS) sessions will be conducted

1. SFS1: AI technology in TC analysis and forecasting
2. SFS2: Case studies, focusing on: Events causing extensive damage, evaluated based on meteorological severity (e.g., wind speeds, rainfall totals) and affected areas; Cases with significant forecast errors that led to operational challenges
3. SFS3: International collaboration in TC research and R20: Sharing Experiences, Addressing Challenges, and Forming Pathways Forward