

THE COORDINATING DIRECTOR'S REPORT - 2022
ON CMO HEADQUARTERS UNIT ACTIVITIES
(Submitted by the Coordinating Director)

1. This document highlights activities of the CMO Headquarters since the 63rd Session of the Council, held on 24-25 November 2022, and hosted by the Government of Cayman Islands. Factors affecting operational aspects at the Headquarters and other matters of interest are also mentioned for information and guidance where appropriate. Details of some activities and developments, where necessary, will be dealt with under separate agenda items.

High Impact Tropical Weather Events

2. Since the last regular session of the Caribbean Meteorological Council in November 2022, the major weather impacts in our region for 2023 were hurricanes, tropical storms, strong tropical waves, and other tropical disturbances mainly in the Eastern Caribbean. Only two tropical storms tracked across the central Caribbean during 2023. Tropical cyclone impacts occurred mostly in the Eastern Caribbean due to tropical cyclones curving towards the north before entering the Caribbean Sea.

3. In the Caribbean/Atlantic basins, this is a summary of the activities of the CMO Headquarters since the 63rd Session of the Council, held on 24-25 November 2022, and hosted by the Government of Cayman Islands. Factors affecting operational aspects at the Headquarters and other matters of interest are also mentioned for information and guidance where appropriate. Details of some activities and developments, where necessary, will be dealt with under separate agenda items.

rainfall outlooks are supplementary information that is also shared with the NHC and critical for understanding and preparing for heavy rainfall impacts.

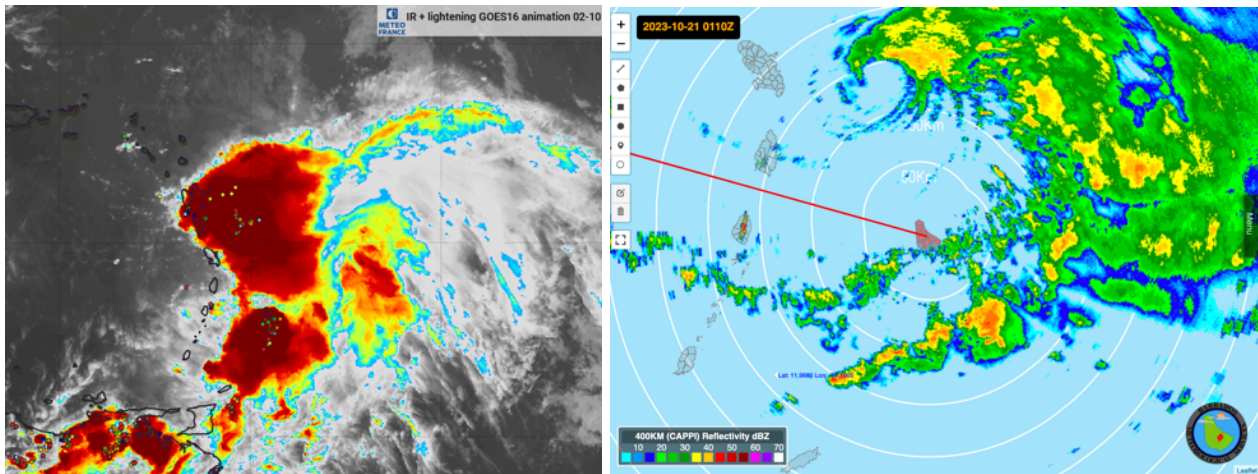


Figure 1. Asymmetric convection pattern distant from the eye of the cyclone (Upper) Asymmetric convection of TC Philippe with lightning (courtesy of Meteo-France) and respective GOES-16 Enhanced IR image. (right) TC Tammy as observed by the Barbados radar (courtesy of Barbados Meteorological Service).

5. The year was also marked by episodes of significant Saharan dust. Members noted the importance of increasing monitoring and prediction capability in the region to support integrated health services and the Global Atmospheric Watch (GAW).

6. To remind us that other types of weather systems, other severe weather, can be damaging and cumulatively costly, for example during 26 October, Barbados experienced flash flooding due to a localized storm. The Windward Islands and Trinidad and Tobago experienced heavy rainfall, flash flooding, and gusty winds, and copious lightning from convection that was a part of the larger circulation around TCs Philippe and Tammy but not directly related to the primary circulation of the cyclones.

7. Jamaica and Guyana continued to experience record drought, which are seen as being influenced by El Niño conditions in the tropical Pacific.

Hurricane Early Warnings for All

8. The WMO RA IV Regional Office, UNDRR, and CMO Headquarters and organized a special panel session at the 45th Hurricane Committee to discuss challenges and ways to move forward to cover the last mile. The CD responded to questions on: How to ensure that hurricane warnings are understood and applied by the most exposed and vulnerable? What is needed to improve anticipatory performance in the last mile? What are the possible factors that impede an effective response from local communities?

Legislation, Strategic Plans, National Frameworks for Weather, Climate, and Water Services

9. Recognizing the importance and multi-faceted nature of the functions of our National Meteorological and Hydrometeorological Services, the increasing demands for their services, and the wide range of their customer base, it is essential that their operations be underpinned and guided by comprehensive legislation. Therefore, through an Implementing Arrangements between the WMO and CMO Headquarters, in 2023, legislation was drafted for Barbados Meteorological Service, with the support of *Climate Risk and Early Warning Systems (CREWS)* Caribbean project. The bill was adapted from the Model Meteorological Bill and Policy that were endorsed by CMO Members in June 2021 and funded WMO (*CREWS*) and *Environment and Climate Change Canada*.

10. To aid in strengthening the capacity for global and regional initiatives to be implementing at the national level, the CMO Headquarters collaborated with the WMO CREWS Caribbean Project to help

CMO Member States to develop Strategic Plans, National Frameworks for Weather, Water, Climate and Ocean Services, and complementary Action Plans for the Turks and Caicos Islands National Meteorological Service and the Cayman Island National Weather Service. Details will be provided under Agenda Item 11.

Strategic Regional Roadmap for Multi-hazard Early Warning Systems (MHEWS)

11. The CMO Headquarters contributed to the development of a *Strategic Roadmap for Multi-Hazard Early Warning Systems in the Caribbean 2020-2030*, which was launched in February 2023 during the formal Wrap-Up of the CREWS Caribbean Project. CMO HQ contributed to Priority Activity 1 as lead coordinator on the development of a multi-sensor precipitation grid over the Eastern Caribbean, with the Barbados weather radar as one of the primary data sources. The project included CIMH, as the technical lead, and the National Meteorological Services of Barbados, Saint Lucia, and St Vincent and the Grenadines. CMO HQ also contributed to Priority Activities 2 and

WMO Matters

12. Many of the activities of the CMO Headquarters were aimed at regional implementation of global programmes and initiatives, particularly those emanating from the **World Meteorological Organization** (WMO) as they related to the Caribbean, generally, and CMO Member States, in particular. As one of the pillars of its mandate, the CMO actively participates in WMO activities at the highest possible level in order to ensure that the interests of small developing states are accounted for and to guide and advise the CMO Member States in their own related activities.

13. The CMO Headquarters was also occupied with the preparation for, participation in and follow-up to the **19th World Meteorological Congress**, held in Geneva, Switzerland, 22 May – 2 June 2023. The Congress is the supreme body of the WMO. Delegates of its Member States and Territories assemble every four years to set out the policies and programmes that impact on matters relating to weather, climate and water in every country of the world, whether large or small, developed or developing. Over the years, primarily because of cost, it has not been easy for some CMO Member States to actively participate routinely in WMO activities at the Congress level. It has, therefore, always been imperative for the Caribbean Meteorological Organization Headquarters Unit, as one of the pillars of its mandate, to actively participate in WMO activities at the highest level; to ensure that the interests of small developing states are accounted for and to guide and advise the CMO Member States in their own related activities. The Coordinating Director was accompanied to Congress by advisors from the Headquarters and CIMH.

14. As part of the preparation for the 19th WMO Congress, the Coordinating Director, the Permanent Representative of the British Caribbean Territories with WMO, provided information about the major items and decisions to be made to the Governments of the WMO Members of CMO Member States and encouraged the participation of their Permanent Representatives and Hydrological Advisers in the Congress. It should be noted that not all CMO Members are compliant with WMO General Regulation 6, with regard to the formalizing of their Permanent Representative with WMO. Council is asked to **urge** to all WMO Members to formalize their Permanent Representatives and Hydrological Advisers with WMO.

15. The outcomes of the 19th WMO Congress be covered in detail under Agenda Item 5. Nevertheless, it is useful to mention a few major issues that the CMO Headquarters and the CIMH have been involved in that will have immediate impact on CMO Member States. Among these is the implementation of the **Early Warnings for All Executive Action Plan**; the **Global Basic Observation Network** (GBON), which will help to improve global weather prediction and climate services; and the **Systematic Observations Financing Facility** (SOFF), which will allow SIDs to be able to implement and sustain their contribution to GBON; and the **Hydrological Status and Outlook System (HydroSoS)**. The CMO Headquarters has continued to be active in supporting WMO regional activities and guiding national action for the **WMO Integrated Global Observing System (WIGOS)**. Members are reminded of the compulsory implementation of the WIGOS, which became operational in 2020. Disaster Risk

Reduction and early warning systems to build resilience to climate change remain as major issues for the Congress.

16. The Coordinating Director, as a member of the **WMO Executive Council** (EC) since 2018, participated in the 76th Session of the EC in Geneva during 27 February to 3 March 2023 along with advisors from CMO Headquarters, CIMH, Cayman Islands and Grenada. After being re-elected to the Executive Council by the 19th WMO Congress, she also attended the 77th Session of the EC in Geneva on 5-6 June 2023.

17. The Coordinating Director continues to serve as the RA IV representative to the **WMO Research Board** (RB), having been selected as the RA IV Research and Modelling Focal Point at the 18th Session of RA IV in February 2021. In that capacity, she has advanced activities that support the research priorities of North America, Central America and the Caribbean.

18. She also serves on the WMO **Panel on Socio-economic Benefits** and the WMO *Staff Pension Committee* and attended UN Joint Staff Pension Board meetings in 2023 as an alternate representative for the WMO.

19. In June 2023, CMO Headquarters hosted the WMO WIS2.0 in a Box Workshop for 19 participants from 15 countries, where participants learnt how to install and configure the software to **enable ease of local and international data exchange**. CMO and WMO have signed a Letter of Agreement whereby WMO will provide cloud services to support a CMO Node of WIS for four years. The CMO is among the first regions to pilot this new technology.

20. CMO Headquarters is ensuring the availability, accuracy, and timeliness of weather, climate, and water observations and related data and information from National Meteorological and Hydrometeorological Services. CMO Headquarters and Trinidad and Tobago Meteorological Service will be responsible for the data quality management system for the English-speaking Caribbean as components of virtual **Regional WIGOS Centre** in Regional Association IV (North America, Central America and the Caribbean) (RA IV). The centre is a collaboration with the United States National Weather Service, Environment Canada, Costa Rica, the CMO Headquarters Unit, and the Trinidad and Tobago Meteorological Service, and was endorsed by the RA IV Management Group in January 2020. An updated RWC review was conducted under the RA IV Infrastructure Committee and approved by the 31st RA IV Management Group meeting. The Coordinating Director and the Science and Technology Officer (STO) participated in a training workshop on the Regional WIGOS Centres in Costa Rica on 12-15 December 2022. The STO attended the RWC Global Workshop in July 2023. The RWC is scheduled to start functioning in pilot mode in the last quarter of 2023.

21. Council Members are urged to enact draft national legislation and policy developed through the Implementing Arrangements between WMO and CMO Headquarters with financing from the CREWS Initiative. The National Meteorological and Hydrological Services will then have the legal mandate for enhancement of Multi-Hazard Early Warning Systems; developing partnerships with multiple sectors; uptake of science and technology advancement; adapting operating models; developing capacities and other key aspects that will influence evolving roles and responsibilities of National Meteorological and Hydrometeorological Services in the Caribbean (NMHSs), especially with the new initiatives such as *Early Warnings for All*.

22. Council is asked to note that **Mr Kenneth Kerr**, STO, was selected to serve as the Chair of the RA IV Services Committee at the meeting of the RA IV Management Group in Geneva on 3 June 2023.

Development of National Meteorological Services in CMO Member States

23. At the request of the **Honourable Minister Kye Rymer**, Minister of Communications and Works, CMO Headquarters made a courtesy visit to the British Virgin Islands (BVI) on 25-27 June 2023, to discuss the development of a National Meteorological Service in the BVI. The Coordinating Director and

Science and Technology Officer met with Ministry officials, the BVI Airport Authority, and the Department of Disaster Management to understand the goals of the BVI with regard to meteorological services and their current capabilities. A meeting on operational matters was held with the BVIAA, DDM, and Antigua and Barbuda Meteorological Service, which provides forecasts and warnings for BVI under the CMO Regional Forecasting Arrangements. CMO HQ is now working with the Ministry and other key stakeholders in BVI on a roadmap towards the development of a National Meteorological Service in BVI. A draft roadmap was shared with the Ministry in October. CMO HQ also coordinated with CIMH on the provision of appropriate operational training for the meteorologist at the DDM.

24. In 2023, CMO Headquarters continued to work with Director of Meteorology of the Turks and Caicos Island (TCI) Airport Authority, **Dr Holly Hamilton**, on the development of their National Meteorological Service, including assistance with. A Strategic Plan developed with funding from CREWS, was accepted by the Ministry and launched in May 2023 in conjunction with a WMO/CMO Training workshop on the Common Alerting Protocol.

Symposia organization

25. CMO Headquarters, in collaboration with Varysian Ltd, organized the Third Caribbean Symposium on Operational Hydro-Meteorology, from 31 January – 2 February 2023, in Jamaica. This symposium followed the success of the first two held in December 2020 and November 2019, respectively. The 2023 symposium focused on Early Warning Systems and the partnerships needed to ensure *Early Warnings for All*.

Support to the Regional and Global Water Agenda

26. Since the 63rd Session of the CMC, the CMO Headquarters has embarked on a number of activities to support the regional and global water agenda, including the development of the WMO HydroSOS Caribbean Implementation Plan, by facilitating nominations of national focal points with WMO and assisting Members with completion of the meteorological information required for their national assessment and the Plan. This effort will synergize with the Early Warnings for All and CREWS Caribbean initiatives.

27. Additionally, in May 2023, CMO Headquarters collaborated with the WMO, the Red Cross, and local disaster management agencies in Trinidad and Tobago to implement Community Based Flood Management Activities in Trinidad and Tobago.

28. Recently the Coordinating Director participated in discussions with CARICOM Secretariat, CIMH, and other stakeholders on the jumpstarting of a regional CARICOM-led water consortium. The Coordinating Director continues to urge CMO Member States to formalize their Hydrological Adviser with WMO and to participate in the RA IV Hydrological Forum. Council is asked to **ensure that each WMO Member has a formally designated Hydrological Adviser with WMO.**

CMO Radar Network and the CMO Operational Radar Group (CORG)

29. CMO Headquarters is working with the Caribbean Development Bank on a project to upgrade the CMO radar network to dual-polarization systems, which is the current standard for operational meteorology. CMO HQ continued to support the operations of the CMO Radar Network through the collection and disbursement of funds to radar host countries. Additionally, CMO HQ hosted three virtual meetings of the CORG since CMC63. Council is reminded that the CORG comprises radar technicians and IT personnel from radar host countries and CIMH, and is co-chaired by Mr Brian Murray of the Barbados Meteorological Service and Dr Ashford Reyes of CIMH. An abstract on the CORG, as a community of practice to support early warnings, has been accepted for presentation at the 2024 Annual Meeting of the American Meteorological Society. Details of the radar network and CORG are presented under Agenda item 10.

SERVIR-Amazonia Caribbean

30. CMO Headquarters partnered with the *International Centre for Tropical Agriculture (CIAT)*, as part of the *SERVIR-Amazonia* expansion to the Caribbean, to deliver capacity building in the generation and use of climate data and other relevant geospatial data to agencies in Trinidad and Tobago. *SERVIR-Amazonia* is part of a joint initiative of the *National Aeronautics and Space Administration (NASA)* and the *United States Agency for International Development (USAID)*.

31. CMO Headquarters together with *SERVIR-Amazonia*, organized 12 training sessions during January to April 2023 on the [use of geospatial tools to monitor hydrometeorological events and mangrove ecosystems](#), for 23 representatives from government, academia, research, and non-governmental organizations in Trinidad and Tobago. CMO and *SERVIR-Amazonia* helped Trinidad and Tobago to develop services and share data focused on (i) increasing resilience to and reducing the risks due to floods and droughts (ii) strengthening the management of fragile mangrove ecosystems. Participants developed enhanced skills in visualizing, mapping, and integrating a variety of data from satellites and radars and in analysing trends in earth observations. Very importantly, they have also begun to develop coordination mechanisms and to integrate information across agencies that will help their nation to make better decisions.

32. Three of the trainees are co-authors on an abstract that was accepted for presentation at the 2024 Annual Meeting of the American Meteorological Society and have been nominated by the CMO Headquarters for potential sponsorship from the US National Weather Service to attend the meeting in person.

Marine Meteorology, Ocean Science, and Services

33. In May 2023, CMO Headquarters co-organized a workshop on *Improving Marine and Ocean Meteorological Services for Trinidad and Tobago*, hosted by the Trinidad and Tobago Meteorological Service (TTMS), with the support of WMO and CREWS. CMO Headquarters continues to coordinate with the WMO in support of capacity development for marine meteorological service delivery in the Caribbean.

Disaster Risk Reduction (DRR), Climate Change Adaptation

34. Council will note that the Coordinating Director was invited to participate in three high-level panels at the Latin America and Caribbean Climate Week during 24-27 October 2023 in Panama, including on the role of National Meteorological and Hydrological Services in DRR, early warnings, and climate services. The Coordinating Director also presented at the UNDRR and Caribbean Disaster and Emergency Management Agency (CDEMA) workshop on Climate Change Adaptation and Disaster Risk Reduction held in July in Port of Spain.

35. Council will recall that a major responsibility for the CMO Headquarters with regard to DRR is the Severe Weather Forecast Programme (SWFP) Eastern Caribbean, which focuses on severe weather (heavy rain, strong winds, rough seas/swells) that can occur at any time of year. The Regional Subprogramme Management Team is co-chaired by *Météo-France-Martinique* and CMO Headquarters and supported by CIMH. The SWFP Eastern Caribbean is in pre-operational test phase, with global and regional model forecasts being used to monitor potential severe weather by the *Regional Forecast Support Facility (RFSF)*–Martinique.

36. In addition to the activities reported above, the CMO Headquarters Unit continues to advance disaster risk reduction in cooperation and coordination with CDEMA, CIMH, and other regional institutions. Through the Regional Early Warning System (REWS) Consortium led by CDEMA, CMO HQ aided in the development of a Multi-Hazard Early Warning System Capacity Mapping. Other related activities are described under Agenda Items 5 and 11.

World Radio Conference 2023: Protecting Radio Frequencies for weather, climate and earth observations

37. Council is reminded that CMO Headquarters continues to supporting the efforts of WMO and others to [protect radio frequencies that are vital for earth observations, weather forecasting, and climate services](#). The CMO is grateful to the Caribbean Telecommunications Union (CTU) and its Members for previously supporting proposals to promote safety and safety-related services, including meteorological and related earth observations in 2019. CMO HQ is encouraging Members to work with their spectrum management authorities to ensure that adequate protection is maintained for radiocommunication allocated to meteorological and related earth observation services.

38. A priority for the upcoming World Radio Conference 2023 is the [impact on sea-surface temperature measurements](#) of a new spectrum allocation for the future development of International Mobile Telecommunications (IMT). Studies show that intended new IMT spectrum identification will interfere with sea surface temperature measurements up to 2000 km from the coast, thereby degrading the data. *Why do we care about satellite observations of sea surface temperature?* Because **sea surface temperature measurements help to predict where tropical storms and hurricanes are likely to form**, that is, where the sea-surface temperature reaches or exceeds 26°C. Additionally, rapid **intensification of storms has been observed when they move over warm currents and eddies**.

39. *For the vast areas of the Atlantic Ocean and the Caribbean Sea, the primary observations of the air and sea are from satellites*, which measure earth observations at particular frequencies. These vital earth emissions are weak signals, which have no alternatives. This is why the CMO is seeking the protection of the radio frequencies used for earth observations and those used for the provision of satellite links to relay data from science and earth observation missions.

Lightning monitoring and safety awareness

40. Lightning is the most commonly experienced weather hazard and it poses a danger to wind turbines and solar farms. Lightning safety promotion was one of the motivating factors for the CMO Headquarters and the WMO to organize the first ever Symposium on Lightning and Lightning Safety Awareness in May 2021, with attendance of 130 participants from 28 countries.

The next phase of the CREWS Caribbean programme to be launched in the 4th Quarter of 2023, will include lightning safety as one of the multiple hazards under Pillar 2 of Early Warning for All.

CARICOM-CARIFORUM Related Activities

41. Council noted that the Coordinating Director and the STO participated in various CARICOM related activities in 2023, including the 103rd Special Meeting of the *Council for Trade and Economic Development (COTED) - Environment and Sustainable Development*, on 19 and 27 June and preparatory meetings for the SIDS. CMO Headquarters also provided detailed briefs for High-level Ministerial Meetings such as the Second Caribbean SIDS High-Level Dialogue on Climate Change, Bahamas Declaration from the High-Level Meeting of Ministers on Climate Finance, and the Fourth SIDS conference preparation.

42. The CMO Headquarters Finance and Administrative Officer, **Mrs Natalie Araujo-O'Brien**, continues to serve on the CARICOM RBM Leadership Group and the Finance Committee of the Caribbean Community Administrative Tribunal (CCAT).

Headquarters Matters: Staff Terminal Benefit Fund

43. CMC63 approved the designation of the Principal of CIMH as the third trustee for the Staff Terminal Benefit Fund. An update on the registration of the Fund with the Central Bank of Trinidad and Tobago will be presented until agenda item 7.

Status update on Strategic Objectives

44. Council will recall granting approval of the *Strategic Plan 2020-2023* and the *Operational Plan 2020-2023* of the CMO Headquarters by the 59th Council and 60th Council, respectively. An update on the Status of the Strategic Plan outcomes and Key Performance Indicators are presented in Agenda Item 12. Council is asked to note that these activities are helping to achieve the outcomes under each Strategic Goal; the upgrading of National Meteorological Services; enhancement of early warning systems and disaster risk reduction; support for the implementation of the WMO Integrated Global Observation System (WIGOS); contributions to establishing regional priorities for operationally-directed research, marine meteorology and ocean services; contributions to the development of the WMO Unified Data Policy, and the framework for the Global Basic Observation Network, among other activities. An update on the Status of the Strategic Plan outcomes and Key Performance Indicators and draft planning for the next Strategic Period are presented under Agenda Item 12.

Other Matters

45. Council is asked to note that, by 15 October 2023, the level of financial contributions received from Member States stood at 78%, which is similar to the percentage from the previous year. Details will be discussed under Agenda item 6(c).

46. The CMO Headquarters is supporting the CIMH in its implementation of the Intra-ACP Climate Services and Related Applications (ClimSA) Programme, on behalf of the CMO. ClimSA is an initiative of the Organisation of the African, Caribbean and Pacific States (OACPS) funded under the 11th European Development Fund (EDF) to strengthen the climate services value chain. See the Principal's report for further details.

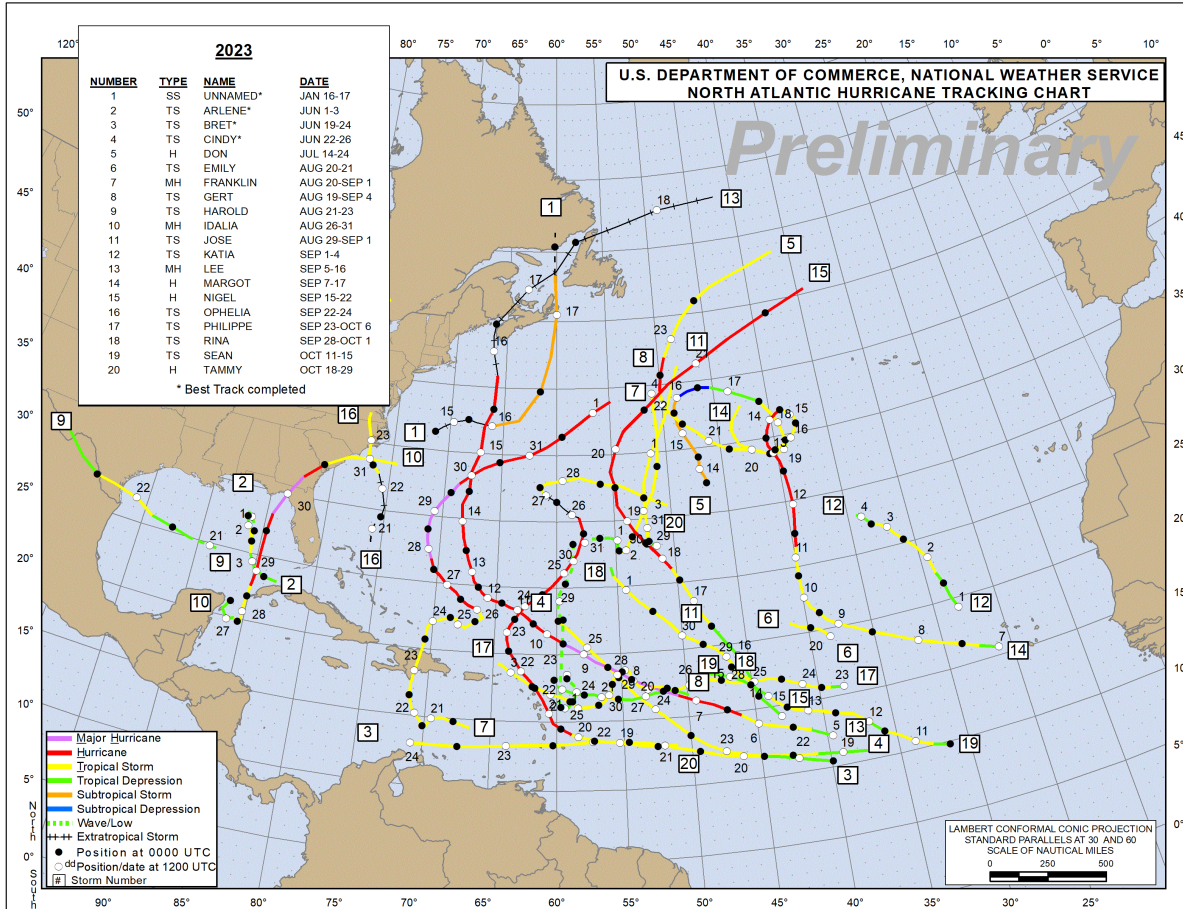
47. The Council:

- (i) **Noted** the activities and issues concerning the CMO Headquarters in 2023, in particular, the implementation of legal mandates and strategic plans in Member States, the engagement with disaster risk reduction and early warning systems; geospatial analysis capacity building; as well as those issues concerning the wider Caribbean Community;
- (ii) **Discussed** the impact of the 2023 hurricane season, other high impact weather, on the region and, in particular, the impact on CMO Member States;
- (iii) **Noted** the progress on the CMO Headquarters Strategic Plan 2020-2023.

High Impact Hazardous Events of 2023

Preliminary Atlantic Tropical Cyclone Tracks

Figure A1. Atlantic Tropical Cyclone Tracks for 2023, up to 11 November 2023



2022/2023 CMO HQ Missions
(Not related to the CMC meetings)

December 5-8	NOAA WMO RA IV Virtual Satellite Training Workshop [CD]
December 12-15	Regional WIGOS Centre Workshop, Costa Rica [CD & STO]
December 13	Severe Weather Forecasting Programme Management Team Meeting, Virtual Platform, Chaired [CD]
December 14	WMO SWFP Eastern Caribbean RSMT Meeting,
December 19	Precipitation Grid Meeting - World Bank CREWS [CD & STO]
January 5	Webinar on Designation of GBON - Global Basic Observing Network (GBON) stations [CD & STO]
January 7 January 8-12	WMO/NWS International Session [CD & STO] in conjunction with 103 rd American Meteorological Society (AMS) Annual Meeting, Denver, Colorado [CD & STO]
January 10	31 st RA IV Management Group Meeting [CD & STO]
January 12	GCF-CREWS Scaling Up Framework Validation Workshop [CD]
January 12	AMS Meeting Oversight Committee (AMOC) Meeting [CD]
January 31- February 2	Caribbean Hydromet Symposium, Varysian, Jamaica [CD]
February 6-9	Regional Conference of the Regional Association IV (RA IV) (North America, Central America and the Caribbean) and related side events [STO in-person, CD - virtual]
February 16-17	CCRIF, Regional Technical Workshop on Parametric Insurance and Modelling [CD]
February 17	WMO Research Board Meeting [CD]
February 20-23	EUREC4A-CMO-SWFP Workshop, Barbados [CD]
February 27- March 3	76th Session of the WMO Executive Council (EC-76) [CD, STO]
February 27 – March 1	MHEWS Conference and Regional Platform on DRR, Uruguay [PDO, virtual, CD – presenter in opening session]
March 15-17	CMO, Dominica, Courtesy Visit on CMO Coordination and Support [CD]
March 20-25	SERVIR- Amazonia Workshop [STO, PDO]
March 22-23	Ministry of Public Utilities, Trinidad and Tobago, Caribbean Regional Water Loss Conference 2023, Port of Spain, [CD]
March 27-31	45 th Hurricane Committee (HC-45), Costa Rica [CD, STO]

April 17-20	NOAA/CIMH Workshop Climate Services to Support Adaptation and Resilience in The Caribbean [STO]
April 18-19	74 th Session United Nations Joint Staff Pension Board [CD]
April 30	UNFCCC - Loss and Damage Workshop [CD, STO]
May 4-5	WMO/CMO Belize Common Alerting Protocol (CAP) Implementation Workshop, Belize [PDO]
May 9-10	WMO/CMO Turks & Caicos Islands Common Alerting Protocol (CAP) Implementation Workshop, Turks and Caicos Islands [PDO]
May 16-17	Workshop on Strengthening Marine Meteorological and Oceanographic Services in Trinidad and Tobago [STO, PDO, CD]
May 18	Workshop on Strengthening Marine Meteorological and Oceanographic Services in Trinidad and Tobago [PDO]
May 19-20	Community Flood Management Workshop, Trinidad [PDO]
May 22- June 2	19th World Meteorological Congress (Cg-19) [CD, <i>P/CIMH, STO, S Boyce, CIMH</i>]
May 23-26	Early Warning Information Systems Across Climate Timescales and 2023 Wet Season CARICOF Meetings [PDO]
June 3	32 nd RA IV Management Group Meeting [<i>CD & STO</i>]
June 5-6	WMO Seventy-seventh Session of the Executive Council (EC-77) [CD]
June 12-16	WMO Information System 2.0 (WIS 2.0), Trinidad & Tobago, [STO, PDO, CD]
June 13	CARICOM Coordination ahead of SIDS Meeting [CD]
June 14	CARICOM Webinar: Regional Sensitization Webinar to mark the introduction and adoption of the concept of Monitoring, Evaluation, Accountability and Learning in the Community [PDO]
June 19, 27	103 rd Special Meeting of the Council for Trade and Economic Development (Coted) – Environment & Sustainable Development [CD, STO]
June 25-27	CMO, British Virgin Islands – Development of Roadmap for a National Meteorological Service [CD, STO]
June 29-30	WMO ET-AVI QMS Webinar [PDO]
July 4-6	2 nd Regional WIGOS Centre Global Workshop, World Meteorological Organization (WMO) [STO]

July 5-10	CIMHET 2023 - XVIII Meeting of the Conference of Directors of Ibero-American Meteorological & Hydrological Services [CD]
July 11-12	Caribbean Regional Workshop on Disaster Risk Reduction and Climate Change Adaptation, Port of Spain [CD, PDO]
August 2	CMO, St Vincent and the Grenadines, Courtesy Visit [CD]
August 2-4	CMO, Grenada, Courtesy Visit and Launch of the SOFF in Grenada, Support for Readiness Phase with AEMET, National Meteorological Service of Spain [CD]
August 8	AMS Webinar, International Perspectives on Lightning, Presenter [CD]
August 10	WMO Regional Webinar on Extreme Heat and Health Services: Tools, Good Practices and Challenges [CD]
August 24	WMO Regional webinar: Existent capabilities and emerging opportunities on calibration of meteorological instruments in RA IV, WMO [STO, PDO]
August 30	RA IV WMO Webinar - Linking science to services: Sowing Seeds of Innovation: Hurricane Preparedness, Early Warning, Response and Recovery, Decisions and Timelines [STO, PDO]
September 4-5	WMO Research Board Meeting, [CD]
September 13	Environment Management Authority of Trinidad & Tobago Inception Meeting: EMA Climate Vulnerability Analysis, [STO]
September 18	NOAA Seminar - The Benefits and Dangers of Pelagic Sargassum to Global Economies [CD]
September 18	WMO RAIIV Incident Management System (IMS) [STO]
September 25	CARIFORUM Consultation of Regional Entities on the Caribbean Cooperation Facility [STO]
October 24-27	UNFCCC Latin America and Caribbean Climate Week [CD]
October 26	WMO 34th RA-III-IV-Satellite Data Requirements (SDR) Group [STO]
November 1-2	National Consultation on Early Warnings for All, Barbados [CD]
November 8-10	CREWS Caribbean MEAL and Partners Workshops [PDO, CD]
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December 12-13	National Consultation on Early Warnings for All (EW4All) in Antigua & Barbuda [CD]
December 14	Severe Weather Forecasting Programme Management Team Meeting, Virtual Platform [Chair, CD]