



REPORT OF THE FIFTY-FOURTH MEETING OF THE CARIBBEAN METEOROLOGICAL COUNCIL



CHAIRPERSON:

Hon. Mr Robert Pickersgill,
Minister of Water, Land,
Environment and Climate Change of
JAMAICA

VENUE AND DATE:

Pegasus Hotel
Kingston
JAMAICA
24-25 NOVEMBER 2014

1. OPENING OF THE SESSION AND ELECTION OF CHAIRPERSON

1.1 At the kind invitation of the of the Government of Jamaica, the Fifty-Fourth Session of the Caribbean Meteorological Council was held at the Pegasus Hotel in Kingston on 24-25 November 2014. The Caribbean Meteorological Council is the Governing and policy-making body of the Caribbean Meteorological Organization (CMO).

1.2 *Mr Jeffery Spooner*, Director of the Meteorological Service of Jamaica, commenced the Opening Session of the Meeting by extending words of welcome, after a prayer and the singing of the National Anthem by *Mr Evan Thompson* of the Meteorological Service of Jamaica

1.3 *Mr Tyrone Sutherland*, Coordinating Director of the CMO, delivered remarks that focussed on the need for relevant and competent institutions that will deliver the most credible, reliable and timely weather and climate information to policy and decision-makers. He indicated that for Meteorological Services in the Caribbean to remain effective in these tasks, they must continuously adapt to the rapid changes in the technologies that are utilized in the sciences.

1.4 *Mr Garfield Barnwell*, Director of Sustainable Development in the CARICOM Secretariat, delivered remarks on behalf of the Secretary-General of CARICOM. He pointed to the achievements of the CMO in the past and the role that its organs continue to play in regional and international matters concerning weather and climate.

1.5 *Mr Robert Masters*, Director of Development and Regional Activities Division of the World Meteorological Organization, addressed the Council on behalf of the WMO Secretary-General.

1.6 The feature address was delivered by *Hon. Mr Robert Pickersgill*, Minister of Water, Land, Environment and Climate Change of Jamaica. Minister Pickersgill lauded the CMO for its role in shaping policies to guide decisions on disaster adaptation and mitigation within the region, noting that weather and climate data are enormously valuable to regional governments, especially with increasing events of extreme weather events, including hurricanes, flooding and drought. He praised the CMO for its strong support and advice to regional governments in the development of their Meteorological and Hydrometeorological Services and in dealing with issues of an international nature affecting weather, water and climate; and for its work in contributing to future strategies to address the impact of climate change on Small Island Developing States.

1.7 After the feature address, a vote of thanks was given by *Mr Evan Gumbs*, Minister of Infrastructure, Communications, Utilities and Housing, Anguilla. He particularly thanked the Government of Jamaica for hosting the session.

1.8 The Meeting elected *Hon. Robert Pickersgill* as the Chair of the Caribbean Meteorological Council for its 54th session and the intercessional period until the next annual meeting of the Council. Mr Pickersgill, who had to attend a session of the Jamaica Parliament, was unable to chair the full session. At his request, *Hon. Ian Hayles*, Minister of State in the Ministry of Water, Land, Environment and Climate Change of Jamaica, deputized as Chairman of the session on his behalf.

2. ADOPTION OF AGENDA AND PROCEDURAL MATTERS

2.1 The Agenda adopted by the Meeting is shown in **ANNEX I** of this Report. The Meeting fixed its hours of work and determined the order in which it would conduct its business. The list of Delegates attending the Meeting is attached as **ANNEX II** to this Report.

3. CMO EXECUTIVE REPORTS

3(a) Coordinating Director's Report

3.1 The CMO Coordinating Director presented his report on the activities and issues concerning the CMO Headquarters Unit since the previous session of the Council. The Council discussed the activities in 2014, noting that many were aimed at laying the groundwork for regional implementation of many global programmes and initiatives, particularly those set in motion by the Congress and Executive Council of the World Meteorological Organization as they relate to the Caribbean region in general and CMO Member States in particular.

3.2 The Council reviewed the region's status in the implementation of a *Quality Management System* (QMS) for aeronautical meteorological services, as mandated by the *International Civil Aviation Organization* (ICAO). Assistance to the region on this matter remained a major activity of the CMO Headquarters and the Caribbean Institute for Meteorology and Hydrology (CIMH). A major revelation to the Council was the news that the QMS standard would be transitioning from ISO 9001:2008 to a new standard 9001:2015 effective in September 2015, which would be significantly different from the old standard, under which the NMHSs have been working towards their QMS.

3.3 Council was informed of the decision of the Caribbean Community to develop a Five-Year *Strategic Plan for the Caribbean Community 2015-2019 "Repositioning CARICOM."* Council noted that the Coordinating Director and the Principal of the CIMH would be involved in contributing to an agreed Framework and Implementation Plan to accompany the Strategic Plan. A major challenge for the Institutions would be to link their own Strategic Plans and/or Work Programmes with Community Strategic Implementation Plan. Council called for the CMO to develop a regional strategic plan for the meteorological community that would be linked to the Community Strategic Implementation Plan.

3.4 The Council noted the CMO Headquarters continuing activities in support of the *Global Framework for Climate Services* (GFCS), particularly the activities to enable the region to participate meaningfully in the implementation of the GFCS, such as the expected role for the CIMH as a *WMO Regional Climate Centre* (RCC) for the Caribbean. Council also noted that the CMO Headquarters continued to provide technical advice to St. Vincent and the Grenadines in relation to flight operations and future meteorological services at the new international airport being constructed at Argyle on the southeast coast of St. Vincent.

3.5 Council noted that, in the latter part of 2014, there had been a comparatively better level of financial contributions from Member States than at the same time in 2013. Council was pleased to know that the Government of Trinidad and Tobago had signed a lease agreement for the CMO Headquarters premises in June 2014.

3.6 The Coordinating Director briefed the Council on some of the scientific, technical and training events in which technical staff participated in, particularly those sponsored by the WMO and its partners that have a special relevance to the region. Council also noted the number of persons named by the Coordinating Director to serve on various WMO Working Groups, Task Teams and Expert Teams for the benefit of the region. Council was particularly thankful and full of praise to the Headquarters' Administrative Officer, *Miss Lynn Nimblett*, who would proceed into retirement early in 2015 after forty-four years of service to the Organization. Council also thanked *Mr Fred Sambula*, who retired in May 2014 as the Director General of the National Weather Service of the Cayman Islands. Mr Sambula's contribution to meteorology and related sciences regionally and globally spanned 41 years. The Council wished both of them well in the future.

3.7 During an in-camera session at the meeting, Council discussed the renewal in 2015 of the Coordinating Director's contract. Council had been notified by the Coordinating Director of his intention to set up the process for selecting a successor during the period of that new contract.

3.8 **The Council** therefore:

- (a) **Noted** the activities and issues concerning the CMO Headquarters in 2014, particularly those dealing with the implementation of major WMO and ICAO-related activities, and issues concerning the wider Caribbean Community;
- (b) **Also Noted** the resolution of the CMO Headquarters building lease and the continuing impact of deficit contributions by Member States to the Organization on the operations of the headquarters;
- (c) **Further Noted** and commended the outstanding contributions to the CMO of **Miss Lynn Nimblett** of the CMO Headquarters and to the regional and international meteorological community by **Mr Fred Sambula** of the Cayman Islands.
- (d) **Approved** the renewal of the Coordinating Director's contract and authorized the Secretary-General of CARICOM to issue the new contract under the normal conditions for the post.

3(b) CIMH Principal's Report

3.9 The Principal of the Caribbean Institute for Meteorology and Hydrology (CIMH) presented his report to the Council on the activities of the CIMH since the last session in 2013. He expressed concern about managing the staff at the Institute, in the present circumstances of budget caps and declining contributions from Member States. The Council was reminded that the need for a strategic plan was discussed at the Fifty-third Meeting of the Caribbean Meteorological Council (Bridgetown, Barbados) and its vision at the time was "think big and achieve big."

3.10 The Council was reminded that the mandate of the Institute was to help improve and develop the meteorological and hydrological services of Member States and to assist in showing the socio-economic benefits of meteorology and hydrology through training, research and related advice in investigations of meteo-hydrological events and that mandate was more than forty (40) years old. The Principal informed the Council that at the request of the CARICOM Heads of Government, the CARICOM Secretariat has embarked on a process geared to rationalize the activities of Institutions of the CARICOM Community during 2013. The aim of the rationalization process was to reduce instances of overlapping institutional mandates and responsibilities and to identify those institutional mandates that no longer supported the regional agenda. He recommended that the institutions of the Caribbean Meteorological Organization perform their own rationalization before they are rationalized by the Secretariat.

3.11 It was recommended to the Council that the questions which should be used to examine the Institute and the Headquarters Units should be:

1. Was the institution fit for purpose?
2. Was the institution effective in delivery?
3. Would the Region be harmed were they to be closed?

3.12 The Council was reminded that the Institute was well known for its training courses in the field of meteorology but not as well known for its training in hydrology and the climates services that it provided. The Institute also continued to attract many research and development projects and offers for collaboration with international institutions. Projects were developed or chosen based on complementarity to the established long term goals of the Institute. A similar approach was used for establishing partnerships and collaborations. This approach ensured that the CIMH can remain focused on achieving its clear long-term objectives

3.13 The Institute provided technical support to the following:

- Caribbean Disaster Emergency Management Agency (CDEMA),
- Caribbean Community Climate Change Centre (CCCCC),
- Caribbean Agriculture Research and Development Institute (CARDI),
- Caribbean Public Health Agency (CARPHA),
- Caribbean Development Bank (CDB),
- Caribbean Catastrophe Risk Insurance Facility (CCRIF),
- Inter-American Development Bank (IDB),
- World Bank, the UNDP,
- UN FAO
- IICA among others that supports their decision-making and investment strategies.

3.14 The Council was informed of the activities of the Institute in the realm of disaster risk reduction at the regional level. Some of activities included:

- CIMH visited St. Vincent and the Grenadines, Dominica and Saint Lucia immediately after the severe rainfall event on Christmas Eve 2013. CIMH visited several heavily impacted areas with Government Officials and assistance was offered to all three countries. St. Vincent and the Grenadines responded favorably to the offer and requested immediate assistance. A draft report on the event was prepared and submitted to the Government of St. Vincent and the Grenadines for review.
- CIMH responded to a direct request for assistance from the Government of Dominica in May 2014 related to landslides in the Laudat region.
- CIMH has advanced work on the Caribbean Climate Impacts Database. The database will act as an archive for climate impacts linked to climatic events.
- CIMH continued to use its regional numerical weather prediction models to support flood early warning especially in areas prone to flooding.

3.15 The Principal also informed the Council of the activities that were designed to raise the profile of its brand internationally, increase funding and business opportunities. The activities also advanced Caribbean science and, in particular, demonstrated to the international community the significant benefits to be realized from collaborative partnerships in meteorological, hydrological and climate training, research and development programmes with Caribbean institutions.

3.16 **The Council:**

Noted The Principal's Report setting out the activities and issues relating to the CIMH since the Fiftieth Meeting of the Board of Governors.

(c) CIMH Board of Governors' Report

3.17 The interim Chairman of the CIMH Board of Governors, Mr Denzil Jones of Montserrat, briefed the Council on the Meeting of the Board, which took place on 20-21 November, just prior to this Council session. Mr Jones assumed the position due to the unavailability of Mr Esworth Reid.

3.18 The Council was informed that the Institute submitted Estimates of Expenditure for 2015 of BBD 7,372,186.00. However, the Board of Governors decided to cap the Estimates of Expenditure at the sum of BBD 6,972,773.00, which was the approved budget for fiscal 2014. The Interim Chairman stated that over the past year the CIMH only received approximately BBD 3.9 million, hence there was an anticipated shortfall in contribution of BBD 3.0 million for fiscal 2015.

3.19 The Interim Chairman informed the Council that the Barbados Ministry of Foreign Affairs and Foreign Trade had informed the CIMH that the Government of Barbados was reviewing its broad policy on Host Country Agreements (HCAs). Therefore, the Ministry was unable to advance the CIMH HCA for discussion during 2014. Further, the Institute was in debt, for the non-remittance of Pay as You Earn (PAYE) to the Government of Barbados, which stood at BBD 4,828,283.44 as of 30 September 2014, this sum that did not include interest and penalties. The debt was realized, because it was not feasible to submit PAYE on a monthly basis as it would leave the CIMH in an intractable financial situation given the uncertainty of the receipt of subventions. The Council was further informed that as at 30 September 2014, the arrears stood at BBD 22,089,410.29.

3.20 The Interim Chairman informed the Council that the Board of Governors made the following decisions:

1. The Board **did not agree** to cover the cost of life insurance for staff under the CARICOM Umbrella plan;
2. The Board **did not agree** to heed the recommendation of the Actuaries in the Actuarial Valuation report to increase the CIMH contribution to the Institute's Pension Scheme by 1.92 percent retroactive to 1 January 2014;
3. With regards to the Estimates of Expenditure the Board **agreed** that increments on salaries can be granted.

3.21 **The Council:**

Noted the decisions emanating from the Fifty-first Meeting of the Board of Governors.

4. STATUS OF ACTIONS FROM THE PREVIOUS SESSION

4.1 Following every session of the Council, the CMO Headquarters produces a single document containing an **Action Sheet** that would allow the Council to follow-up on the actions taken on the decisions of its previous session, and to discuss any further actions if required. A summary of the decisions of CMC53 (Barbados, 2013) was prepared, giving the status of actions taken to implement these decisions of Council, and to indicate areas where action as proposed had not materialized.

4.2 The Council was reminded of the discussions at CMC53 under the 5(c) on the ICAO-mandated *Quality Management System* (QMS), the lack of financial resources meant that little progress was possible during 2014 towards the development and operation of a system of regional QMS auditors. These efforts would continue.

4.3 Further, under item 3(c) *Board of Governors Report*, the role of CIMH had been expanding in response to global changes on a forty (40) years old mandate. The CIMH should draft and debate a re-defined mandate before its consideration by policymakers.

5. SPECIAL CMO AND WMO ISSUES

5.1 The Coordinating Director briefed the Council on the following special CMO and WMO-related issues in connection with the following topics:

- (a) Outcome/Highlights of the 2014 Executive Council (EC) of the World Meteorological Organization
- (b) Implications of the Extra-ordinary session of the WMO Commission for Basic Systems (CBS-Ext) for CMO Members
- (c) Implementation of the *Global Framework for Climate Services (GFCS)*
 - *Intergovernmental Board for Climate Services (IBCS)*
 - Status of RCCs & RCC in Barbados in demonstration phase
 - WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS
- (d) Aeronautical Meteorological Services – Current and Future Activities
 - 1. Status of regional Quality Management Systems (QMS)
 - 2. Staff Competencies and Training
 - 3. QMS Auditing – developing a system among CMO Member States
- (e) WMO Capacity Development Initiatives
- (f) WMO Regional Training Centres - WMO Global Campus Proposal
- (g) The World Meteorological Congress 2015.

5 (a): **Outcome/Highlights of the 2014 Executive Council (EC) of the World Meteorological Organization**

5.2 The Coordinating Director of the CMO, as a member of the WMO Executive Council, having been first elected in 1999 and then serving as the Second Vice-President of the WMO for the maximum two terms between 2003 and 2011, attended the 66th session of the Executive Council in Geneva, Switzerland from 18 to 27 June 2014. The Coordinating Director was accompanied to this session by a team of advisers and experts, comprising *Dr David Farrell*, Principal of the CIMH, and *Mr Glendell De Souza*, Science and Technology Officer at the Headquarters of the CMO.

5.3 The 2014 session of the Executive Council reviewed the Organization's goals and activities as set out in the WMO Strategic Plan 2012-2015 and the WMO Secretariat Operating Plan, as well as WMO's activities since its previous session in June 2013, including:

- (i) Priority activities towards enhanced ***Disaster Risk Reduction*** (DRR);
- (ii) Improved ***observation*** and ***information systems***;
- (iii) Improving and providing new ***meteorological services to Civil Aviation***;
- (iv) ***Strengthening the capacity*** of National Meteorological and Hydrological Services (NMHSs) in developing countries;
- (v) Implementing the ***Global Framework for Climate Services*** (GFCS); and
- (vi) Preparation for the ***Seventeenth World Meteorological Congress*** (Cg-17) in 2015.

The GFCS and services to aviation are discussed in detail in paragraphs from 5.19 and 5.20 below.

5.4 The WMO Executive Council reviewed plans for the service delivery within the WMO Strategic and Operating Plans for 2016-2019. It considered that there should be a coherent and harmonized approach to service delivery by WMO Programmes and constituent bodies, in particular the *Public Weather Service (PWS)* and *Disaster Risk Reduction (DRR)* Programmes and programmes for the development of services for water management.

5.5 In this regard The Executive Council stressed the fundamental importance of multi-hazard information and services provided by NMHSs. Considering that the term of the *Hyogo Framework for Action (HFA) 2005-2015* was drawing to an end, the Council recognized the strategic importance of WMO's active participation in the planning of the third *World Conference on Disaster Risk Reduction (WCDRR-III)* in March 2015) particularly in the drafting of the Post-2015 Framework for DRR, with clear direction from a WMO-wide DRR strategy. The CMO was among several organizations that participated in regional and global consultations for the WCDRR, facilitated by the *United Nations International Strategy for Disaster Risk Reduction (UNISDR)* and the regional socio-economic groupings. These inputs were intended to show:

- (i) the importance of meteorological, hydrological and environmental services in support of DRR decision-making and
- (ii) technical and institutional capacities and challenges faced by Members in implementing early warning systems in support of risk-informed decision-making.

5.6 The Executive Council noted that the *Tropical Cyclone Forecaster Website (TCFW)* became an official WMO website. It could be found on the webpage of the *Tropical Cyclone Programme (TCP)* or directly at <http://severe.worldweather.wmo.int/TCFW/>. The Council also noted that the web version of the updated *Global Guide to Tropical Cyclone Forecasting* was in the final stage of review before it would be made accessible to users. The enhanced use of the TCFW and the *Global Guide* was recommended to meteorologists in CMO Member States and in all tropical cyclone areas.

5.7 The Executive Council discussed the continuous efforts made to respond to technical and regional requirements for improved marine meteorological and oceanographic services. It provided guidance on key activities including the preparation of documentation of the *WMO Marine Weather Forecaster Competence Standards Framework*, as well as the implementation and application of projects for realizing an impact-based forecasting system. These would be brought to the 17th Congress for its consideration.

5.8 The WMO Executive Council noted the growing interest in the topic of **climate engineering**, also referred to as **geoengineering**, and its proposed application as a potential strategy for limiting climate change impacts through a wide spectrum of technologies. As expressed by some authors, geoengineering is an example of a highly political science-driven topic, described as the intentional manipulation of the planet's environment to counteract human-induced climate change. Many suggested that consideration be given to geoengineering due to the pace of international efforts to limit atmospheric concentrations of greenhouse gases. However, geoengineering was considered by some as an imperfect substitute for emission reductions using technologies that have different levels of complexity, uncertainties and associated risks, and would likely have undesirable side effects.

5.9 The Council noted the interest of some Member States in developing a science-based assessment on climate engineering; specify the gaps in scientific understanding, and in promoting specific research activities to fill such gaps. Recognizing the complexity of the topic, it requested the *WMO Commission for Atmospheric Sciences (CAS)* to keep the Council and Congress updated on any significant developments in climate engineering of relevance to WMO, in order to enable decisions on the appropriate level and nature of WMO's involvement in climate engineering.

5.10 The Coordinating Director of the CMO urged CMO Member States to be cautious in accepting everything that was written on climate engineering, particularly online publications, because of the controversial nature of the topic.

5(b): The Extra-ordinary session of the WMO Commission for Basic Systems (CBS-Ext)

5.11 The *WMO Commission for Basic Systems (CBS)* has a leading role in the development, implementation and operation of integrated technical systems and infrastructure in support of all WMO Programmes and priority areas. An Extra-ordinary session of CBS took place in Asunción, Paraguay, from 8 to 12 September 2014. The Coordinating Director of CMO and the Director of the Meteorological Service of Trinidad and Tobago were the regional participants in the CBS session. This Section would look at some specific implementation activities of the priority areas approved by the WMO Congress and the Executive Council.

WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS)

5.12 The *WMO Integrated Global Observing System (WIGOS)* is an all-encompassing approach to the improvement and evolution of WMO's global observing systems, and it is needed to consolidate progress in meteorological research, numerical modelling, and computer and communication technologies. Closely tied to WIGOS is the implementation of the new *WMO Information System (WIS)*. WIGOS, together with WIS, would be the basis for the provision of accurate, reliable and timely weather, climate, water and related environmental observations and products by all Members and WMO Programmes, which would lead to improved service delivery. Both WIGOS and WIS were very essential to all technical and scientific activities of Meteorological Services in the Caribbean and worldwide.

5.13 The Extra-ordinary session of CBS examined the progress in implementing the Regional WIGOS Implementation Plans (R-WIP), including that for the North America, Central America and Caribbean region. The implementation of the WIGOS Framework was approaching a point of maturity, so that a *Preoperational Phase* of WIGOS from 2016 to 2019 was expected to be approved by the WMO Congress in 2015. Member States in those regions that still lagged behind in WIGOS preparatory activities, including several in the North America, Central America and Caribbean region, were urged to give priority to this matter.

5.14 In the case of WIS, CBS discussed the fact that most regions around the world were actively developing their implementation plans. It noted that plans in Region I (Africa) and IV (North America, Central America and the Caribbean) were lagging behind the other regions. It called for greater urgency by Member States to implement their regional plans for both WIGOS and WIS. The Science and Technology Officer of the CMO Headquarters is the co-Chair of the *Regional Task Team for the Implementation of WIGOS and WIS*. The regional Task Team also included a representative of Antigua and Barbuda.

5.15 Of particular importance to the development of WIS are the related telecommunications plans of the *International Civil Aviation Organization* (ICAO). At a joint session with the ICAO Meteorological Division, the WMO *Commission for Aeronautical Meteorology* (CAeM) identified several areas in which it would need the assistance of CBS, one of which was the interoperability between WMO's WIS and the *System Wide Information Management* (SWIM) system being designed by ICAO. Because of the major impact that SWIM would have on the services required from Member States, CBS recognized that it must actively collaborate with ICAO in the development and implementation of SWIM, and urged the NMHSs in all WMO Member States to prepare for the implementation of SWIM.

Satellite issues: New Generation Satellites and the Impact on the Caribbean Region

5.16 The *Commission for Basic Systems* discussed the vital role of satellite observations from various orbits for permanent weather monitoring and forecasting. These space-based observations cut across all component observing systems of the WIGOS. The status of the constellation of weather satellites was therefore under constant review in order to meet the operational requirements of the user community.

5.17 However, CBS stressed that the Caribbean and regions in the Americas must follow very closely, developments concerning the next generation of geostationary weather satellites, specifically the ***Geostationary Operational Environmental Satellites – R Series (GOES-R)***. GOES-R would be the first in this new generation, scheduled for first launch in early 2016. GOES-R would provide very high definition images of weather patterns and severe storms as frequently as every 30 seconds (as opposed to every 30 minutes with the current generation GOES). GOES-R would include a new capability for total lightning detection. GOES-R products would contribute to more accurate and reliable weather forecasts and severe weather outlooks and it would improve hurricane tracking and intensity forecasts. Detailed information on GOES-R can be found at <http://www.goes-r.gov/>.

5.18 Importantly, CBS pointed out that because of the massive jump in technology from the current GOES series to the new satellites, existing ground-receiving equipment used by the NMHSs in Member States would not be capable of handling the GOES-R data. CBS urged the leaders of NMHSs to be actively involved in preparing for the satellite transition.

5(c) Implementation of the *Global Framework for Climate Services (GFCS)*

5.19 The ***Global Framework for Climate Services*** (GFCS) is a UN-led initiative, spearheaded by the World Meteorological Organization, to guide the development and application of science-based climate information and services in support of decision-making. The *Global Framework for Climate Services* would therefore bring together providers of climate services, researchers and users, to make sure that the information provided by meteorologists and climate scientists was understandable and relevant to climate-sensitive activity.

5.20 The GFCS has four initial priority sectors, namely agriculture and food security, water, health and disaster risk reduction. The GFCS is one of the five top priorities of the WMO. It would be underpinned by WMO Programmes and would build on existing structures, in which the WMO *Commission for Climatology* (CCI) would have a central role in the implementation of the GFCS.

5.21 The GFCS, which was launched in October 2012, set up the ***Intergovernmental Board on Climate Services*** (IBCS) as an additional body accountable to Congress. The first session of the IBCS, held in Geneva, Switzerland in July 2013:

- (a) adopted the Implementation Plan of the GFCS, including projects and activities for immediate implementation;
- (b) established a Partners Advisory Committee (PAC) as a stakeholder engagement mechanism; and
- (c) established the Management Committee of the IBCS.

5.22 A number of partners had already started submitting applications to join the PAC, and efforts were being made to mobilize the support of partners, including the *World Bank* and the *United Nations Development Programme* (UNDP), for implementing specific activities in support of Members. At the same time, there have been various efforts undertaken by Member States to implement the GFCS, including through the establishment of frameworks for climate services at the national level and through the activities of specific projects. For the Caribbean region, the initial stages are underway of the *Canadian-funded GFCS Project called the "Programme for Implementing the Global Framework for Climate Services (GFCS) at Regional and National Scales Project."* This important initiative would undoubtedly contribute to the development and improvement of the capacity of the *Meteorological Services in the Caribbean* in terms of providing better climate services. There were also initiatives in the region being funded by NOAA and UNDP.

5.23 The first meeting of the IBCS Management Committee was held in Geneva in June 2014. Dr David Farrell, Principal of the CIMH, is the regional representative on the Management Committee with Mr Adrian Trotman as the alternate. The second meeting of the IBCS took place from 10 to 14 November 2014 in Geneva, Switzerland. IBCS-2 reviewed the early phases of the GFCS implementation, including the various projects and partnership activities, as well as the development of recommendations to be taken to the 17th WMO Congress in 2015.

Status of RCCs & RCC in Barbados "in Demonstration Phase"

5.24 A very important contribution to the implementation of the *Global Framework for Climate Services* would be the global network of WMO *Regional Climate Centres* (RCC) which would contribute to enhancing resilience in social, economic and environmental systems to climate variability and climate change. The RCCs would have an important role in tailoring global climate products to regional needs on a sustainable operational mode and also in supporting national requirements of NMHSs where needed, through mutual arrangements.

5.25 The Extra-ordinary session of the *WMO Commission for Basic Systems* (CBS), which took place in September 2014 (see Section 5(b) above), examined applications by specialized centres in various regions of the world to be recognized as WMO RCCs. One RCC in Africa and one in South America were approved by CBS. Since 2013, the CIMH has been functioning as a *WMO Regional Climate Centre "in demonstration phase"* for the Caribbean, as the CIMH would have a very important role in supporting CMO Member States in their implementation of the GFCS. The WMO Secretariat and the management structure for North America, Central America and the Caribbean have been monitoring the progress of the CIMH as an RCC. After a review by an Expert Team, it was expected that the *WMO Commission for Basic Systems* (CBS), in consultation with the *WMO Commission for Climatology* (CCI), would decide on the operational status and formal recognition of CIMH as an RCC in 2016.

WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS

5.26 The Caribbean Meteorological Council recalled its discussions at its 52nd session in Saint Lucia (November 2012), and its 53rd session in Barbados (November 2013) on the very important issue of the “ownership” and use by third parties of meteorological and hydrological data emanating from any Member State. Those discussions took place to reiterate that the principle of the international exchange of meteorological and hydrological data and products remained fundamental to the existence and functionality of any NMHS, and that knowledge of and adherence to international and regional agreements on this topic by the NMHSs were issues that concern national governments. Discussions took place on this topic during both sessions of CMC since there appeared to be some uncertainty about this matter, which apparently occurs in several parts of the world with a change of leadership in the NMHSs.

5.27 The relevant two major international agreements of the WMO Congress, as well as a related decision of the 43rd session (2003) of the Caribbean Meteorological Council, have been provided to NMHSs in CMO Member States. These are:

- **WMO Resolutions 40** of the 12th WMO Congress (1995) - “*WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities*”;
- **WMO Resolution 25** of the 13th WMO Congress (1999) - “Exchange of Hydrological Data and Products”;
- **CMC43 decision** (2003) on the “*Provision of Meteorological and Hydrological Data and Products by CIMH*”.

5.28 In view of the high international priority being given to the *Global Framework for Climate Services*, the WMO has been reviewing its *Policy for International Exchange of Climate Data and Products to Support the Implementation of the GFCS*. The draft resolution on this Policy would be submitted to the Seventeenth WMO Congress in 2015.

5(d) Aeronautical Meteorological Services – Current and Future Activities

5.29 The Council recalled that, for several years, it had examined the vital issue of Meteorological Services for the aviation sector. Council has recognized that the *International Civil Aviation Organization* (ICAO), in collaboration with the *World Meteorological Organization* (WMO), had placed high priority on the imposition of a **Quality Management System (QMS)** for all types of service to civil aviation. Specifically, ICAO had mandated that from *15 November 2012*, every designated Meteorological Authority around the world must have implemented a Quality Management System.

5.30 In 2013, Council noted with some concern that several CMO Member States had not met the November 2012 deadline, although most appeared to be close to completing the process. Both ICAO and WMO had cautioned the Council about possible ramifications for failure to implement a QMS. In June 2014, WMO again expressed concern that the implementation rate of QMS was still not at an acceptable level.

5.31 Council recalled its discussion of the fact that the QMS issue remained closely tied to the implementation of WMO's *aeronautical meteorological personnel competency standards* and several other emerging challenges in aeronautical meteorology. At its 53rd session (November 2013), Council reminded Member States that, in addition to completing the QMS process, there was also a WMO deadline of 1 December 2013 for the process of undertaking assessment and documentation of the competency of Aeronautical Meteorological Personnel (AMP). Because of the high priority of this matter, Council once again urged the completion of the QMS and competency assessment process among the CMO Member States.

5.32 Council noted the major significance of the *ICAO Meteorology Divisional Meeting* conjointly with the Fifteenth Session of *WMO Commission for Aeronautical Meteorology (CAeM)*, which took place at the ICAO Headquarters in Montreal in July 2014. The theme of the meeting was centred around the "**One Sky**" concept relating to ICAO's *Global Air Navigation Plan*, which would lead to "*Improving the Safety and Efficiency of International Air Navigation through the enhancement of meteorological service for international air navigation.*"

5.33 An important development emerging during the conjoint session was the announcement that, effective September 2015, the *International Organization for Standardization (ISO)* would be replacing its QMS standard from 9001:2008 to a new standard 9001:2015. The new standard was significantly different from the old standard and could mean that the NMHSs in CMO Member States would need to review all their recent QMS preparatory work to meet these new stipulations.

5.34 ICAO made several decisions relating to the future aeronautical and related meteorological information under the "One Sky" concept. Specifically, provisions were made to integrate aeronautical meteorological information into ICAO's future *System-Wide Information Management (SWIM)* environment, which was to be developed (see paragraph 5.15 above).

5 (e): WMO Capacity Development Initiatives

5.35 The WMO Representative, *Mr Robert Masters*, briefed the Council on a number of Capacity Development Initiatives of the WMO. In particular, he looked at initiatives within an inter-governmental mechanism, such as the Caribbean Meteorological Organization, which had the *Caribbean Meteorological Council* as its Governing Body, to undertake the *coordination of the joint scientific activities* of the respective National Meteorological Services, the *establishment of joint technical facilities and systems*, the provision of *joint training facilities*, and the promotion of a reliable *severe weather warning system* to safeguard the region. He noted that the CMO provided support and *advice to governments* in the development of their Meteorological and Hydrometeorological Services and in dealing with issues of an international nature affecting weather, water and climate, and represents the regional meteorological community's interests in relation to *international civil aviation* matters. He noted that CMO and WMO work very closely under a set of Working Arrangements dating back to 2002.

5.36 Mr Masters briefed the Council on various governing or coordination mechanisms around the world with similar functions as CMO or that aim at similar levels of collaboration and coordination. In one such example, in particular, the Council would be briefed on the WMO *Capacity Development Strategy* with particular attention to AMCOMET, a joint initiative of WMO and the **African Union Commission**, established in April 2010 during the First Conference of Ministers Responsible for Meteorology in Africa, where the ministers adopted the *Nairobi Ministerial Declaration*. AMCOMET is a high-level mechanism for the development of meteorology and its applications in Africa and is a body endorsed by African Heads of State and Government. It is the inter-governmental authority on meteorology, which advises African Heads of State on all policy matters related to the provision, access and use of weather and climate services.

5 (f): WMO Regional Training Centres - WMO Global Campus Proposal

5.37 The Caribbean Meteorological Council recalled its discussion at its 53rd session (Barbados, 2013) and again discussed the WMO Education and Training Programme (ETRP), which was one of 19 major Programmes of the WMO. The Programme was designed to assist Member States develop and utilize education and training resources in meteorology and hydrology, and to assist in coordinating the setting of international standards for this education and training.

5.38 Council again discussed the ETRP support for the network of 38 designated **WMO Regional Training Centres** (RTCs) in 26 countries that play a key role in education and training for Member States. The *Caribbean Institute for Meteorology and Hydrology* (CIMH) is the WMO RTC for the English-speaking Caribbean, designated in 1978. CIMH was also designated as a *WMO Regional Instrument Centre* in 1997 and as a *WMO Centre of Excellence* (CoE) for Satellite Meteorology in 2000. In 2012 the process was started, at the request of the CMO, for the CIMH to be designated as *WMO Regional Climate Centre* (RCC) (see paragraph 33 above).

5.39 The network of WMO RTCs is very important to all the nations and regions that support them, such as the CIMH is to the Caribbean. In June 2014, the WMO Executive Council was provided with a concept document for the creation of a *WMO Global Campus*, aimed at providing a mechanism to enhance the quality of services provided by the existing RTC network, as well as the quality of training services provided by other stakeholders. The Caribbean Meteorological Council took note of the debate at the WMO level, on the possible impacts of such a Global Campus on the operations of the RTCs, particularly those serving developing and least developed countries, and whether the aim was for the WMO Global Campus to replace any of the RTCs.

5.40 The Caribbean Meteorological Council accepted the view that, whatever the initial intention might have been, the current WMO proposal for a WMO Global Campus to be submitted to the Congress in 2015 appeared not to be a threat to the network of RTCs. However, the Council urged diligence to ensure that any proposal for a WMO Global Campus presented to the 17th *World Meteorological Congress* in May 2015; must not undermine the purpose and programmes of the network of RTCs, which are operated by Members for the benefit of the wider meteorological community.

5 (g): The World Meteorological Congress 2015

5.41 Every four years, the **World Meteorological Congress**, the highest body of the WMO, meets to review its Programmes and activities for the next Financial Period. The Programmes of the WMO affect all nations of the world. The 17th *World Meteorological Congress* was scheduled to be held in Geneva, Switzerland from May 25 to June 12, 2015. As it does at every session preceding a WMO Congress, the Caribbean Meteorological Council discussed and developed its positions on existing and emerging issues in preparation for the Congress. While discussion on this Agenda item was carried out in-camera, some background to a few topics is provided here.

5.42 Council discussed the core and priority activities, which would be reflected in the draft *WMO Strategic Plan* for 2016-2019. Council discussed some issues that relate to the General Regulations of the Organization. Among these were:

- (1) Terms for the Secretary-General;
- (2) Number and distribution of seats in the Executive Council;
- (3) The election and appointments of the Officers of the Organization.

5.43 The Council:

- (i) **Noted** and discussed the WMO activities of special interest to CMO Member States;
- (ii) **Re-emphasised** the need for the NMHSs in CMO Member States to give greater urgency to implement their portions of regional plans for both WIGOS and WIS;
- (iii) **Expressed** its continued strong support for the *Global Framework for Climate Services* and to urge Member States to actively participate in GFCS activities as appropriate;
- (iv) **Urged** Member States to pay close attention to the development of the *WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS*;
- (v) **Also Urged** Member States to complete any outstanding procedures with regards to the ICAO-mandated Quality Management System and the related *aeronautical meteorological personnel competency standards*;
- (vi) **Noted** the discussions emanating from the dialogue with the WMO on its Capacity Development Initiatives;
- (vii) **Also Noted** the importance of the WMO network of Regional Training Centres and the importance of the CIMH, within this network, to the Caribbean and the need for strong support for the RTCs within the context of proposals for a WMO Global Campus;
- (viii) **Discussed** its strategies and positions for the 17th *World Meteorological Congress* in camera; and
- (ix) **Urged** Member States to actively participate in the 17th World Meteorological Congress in 2015.

6. FINANCIAL REPORTS

6(a) Status of Refundable Balances

6.1 The Council was presented with the current status of the CMO Member Refundable Balances from reimbursements from the United Kingdom held by the CMO Headquarters Unit. The balance as of 1 October 2014 in TTD was as follows –

<u>BCT</u>		<u>CMO MEMBERS OF WMO</u>	
Anguilla	43,983.16	Antigua & Barbuda	5,917.25
Br. Virgin Is.	55,470.77	Barbados	41,074.44
Cayman Is.	293,096.71	Belize	5,548.57
Montserrat	11,027.40	Dominica	12,534.25
Turks & Caicos Is.	110,868.31	Guyana	8,425.10
		Jamaica	129,947.39
		Saint Lucia	9,666.21
		Trinidad & Tobago	104,354.42
	<u>\$514,446.35</u>		<u>\$317,467.63</u>
	=====		=====

St. Kitts & Nevis (funds held from BCT days \$83.74)

6.2 By Members' consent, these funds are held by the CMO Headquarters Unit to assist Members in attending important Met/Hydro Meetings, and also to purchase spares. They have been used very effectively in pursuit of these objectives, including during the year 2014.

6.3 The amounts shown in paragraph 6.1 were first calculated for accounting and auditing purposes. However, as the BCT contribution to WMO was included in the individual CMO Member State's contribution to the CMO Headquarters, there was only a disbursement in cases where countries made contributions on a regular basis, so that the actual amount available for drawdown by those States was linked to their level of arrears to the Organization. In keeping with a decision made during the 47th session of the Council (2007), each session of the Council is provided with the actual amount of refundable balance that each Member State was entitled to, shown in the table below:

<u>BCT</u>		<u>CMO MEMBERS OF WMO</u>	
Anguilla	43,983.16	Antigua & Barbuda	2,000.00
Br. Virgin Is.	55,470.77	Barbados	41,074.44
Cayman Is.	293,096.71	Belize	5,548.57
Montserrat	11,027.40	Dominica	12,534.25
Turks & Caicos Is.	110,868.31	Guyana	8,425.10
		Jamaica	2,000.00
		Saint Lucia	9,666.21
		Trinidad & Tobago	104,354.42
St. Kitts & Nevis	83.74		

6.4 **The Council:**

Noted the status of the Refundable Balances Account, as presented.

6(b) **CMO HQ Auditor's Report**

6.5 The 2013 audited accounts of the CMO Headquarters Unit were presented to Council by the Coordinating Director. The accounts for fiscal 2013 were audited by the Auditor General's Department during September-October 2014.

6.6 **The Council:**

Noted, Reviewed and Accepted the audited Statement of Accounts for 2013.

6(c) **Statement of Contributions and Arrears (CMO HQ & CIMH)**

6.7 The *Caribbean Meteorological Council* (CMC), as the Governing Body of the Caribbean Meteorological Organization (CMO), had been making annual appeals to Member States for the rectification of the state of arrears of contributions to both main arms of the CMO, namely the *Headquarters Unit* and the *Caribbean Institute for Meteorology and Hydrology* (CIMH). The CMO Headquarters and the CIMH continued to operate under very difficult circumstances because of the large arrears of contributions by Member States. The Council had constantly urged Member States to make regular payments to the current budget estimates and to establish a plan to pay off arrears.

6.8 The Council recalled that, for a number of years, the Auditor General of Trinidad and Tobago made reference to the state of arrears in the Report on the Financial Statements of the CMO. Notwithstanding the pleas of previous sessions of the Council for Member States to make regular contributions, there had been little change to the situation with several Member States. This year 2014 had shown a late and very significant increase in the level of contributions received over previous years, primarily due to a few full payments and payment of some arrears by a few Member States. At the same time, there continues to be the situation where some States have not made any payment for up to six (6) years, while others may only have made very small payments interspersed by no payments at all. Council again noted that, as has happened since late 2008, only because of an advanced 2014 payment made by Trinidad and Tobago late in 2013 was the Headquarters able to pay salaries in the first few months of 2014, for which the CMO Headquarters must express its gratitude.

6.9 The Principal of the CIMH informed the Council about the level of contributions received by CIMH for 2014 up to 30 September 2014, in which the overall arrears in contributions owed to the CIMH continued to grow. Council was particularly concerned that, as a result of the growing arrears, there was no easing of the amount that CIMH owed the Government of Barbados for the non-payment of Pay-as-You-Earn (PAYE) taxes from April 2006.

6.10 Council joined the Coordinating Director and the Principal in commending the Representative of Jamaica for the significant payments received during 2013 and 2014. The Representative of Jamaica gave the commitment to Council that Jamaica would seek to pay its contributions in 2015 and make payments to reduce its arrears. Several other Member states in arrears indicated that, despite the continuing economic difficulties, they would make every effort to reduce the arrears in 2015.

6.11 The Council:

Reiterated an earlier call for Member States to make every effort to pay their full contribution for the current year, while setting up an internal mechanism to pay off arrears.

6(d) CMO Headquarters Staff Matters

6.12 The Council was presented with a discussion paper outlining issues arising from the proper application of taxation matters with respect to CMO Headquarters staff under the Host Country Headquarters Agreement between the Government of Trinidad and Tobago and the Caribbean Meteorological Organization. The Host Country Headquarters Agreement relates to the "*Privileges and Immunities to be granted in connection with the Headquarters Unit of the Caribbean Meteorological Organization.*"

6.13 Due to an incorrect interpretation and application of the provisions under the Agreement, some staff members had been paying taxes on emoluments received from the Organization, which was contrary to the provisions of the Agreement. In order to rectify the situation, the Chairman of the 53rd Caribbean Meteorological Council took decisions during the intersessional period on behalf of the Council.

6.14 The Council discussed a suggestion from the Department of the Auditor-General of Trinidad and Tobago, which serves as the External Auditors of the CMO Headquarters (see Agenda Item 6(b)), for a slight amendment to one clause in the Deed of the CMO Headquarters Staff Terminal Benefit Fund, in order to bring the Deed fully in line with changes that have taken place and implemented over the years in relation to the terms and conditions of service under the CARICOM regulations.

6.15 **Council therefore:**

Noted the issues concerning the application of Privileges and Immunities within the CMO Headquarters Agreement in relation to staff remunerations;

Further Noted the decision in October 2014 of the Chairman of the Caribbean Meteorological Council, on behalf of the Council, concerning the refund of income taxes to affected staff of the CMO Headquarters,

Approved the amendments to the Deed of the CMO Headquarters Staff Terminal Benefit Fund, as shown in **ANNEX III**.

7. CMO BUDGETS (Headquarters Unit, CRN and Radar, CIMH)

7(a) CMO HQ Budget Estimates for 2015

7.1 The Council examined the CMO Headquarters' Budget Estimates for 2015. The Council recalled that over the previous four budget presentations (2010, 2011, 2012, 2013 and 2014), it made budgetary provisions for some of its earlier decisions that had been held in abeyance because of the prevailing economic situation in the Caribbean. The aim of the Council was to ensure that the CMO Headquarters remained in a position to guide the region's involvement in the increasing number of international weather and climate activities that impact on the Member States.

7.2 At its 53rd session (2013), Council was presented with budget estimates for 2014 that still could not include all matters held in abeyance. Council noted that the level of contributions from Member States in 2014 continued to be well short of the approved budget target until quite late in the year. The economic indications from some Member States had suggested that 2015 could still be difficult in the region. Council was informed that 2015 was expected to be a very busy year, due to the implementation of many regional and global programmes that impact on the Member States. Nonetheless, the CMO Headquarters indicated to Council that it would place its priority on first meeting the essential staff commitments and basic programmes, as was done in the 2014 budget estimates, and then attempt to cover the critical new programmes, where possible.

7.3 Council noted that in the 2011, 2012, 2013 and 2014 budget estimates, a prime factor was the inclusion of a budget line for the rent of the premises occupied by the CMO Headquarters in Port of Spain. Council recalled that, as described under Agenda Item 3(a), the Government of Trinidad and Tobago had concluded a lease agreement on the premises agreement in June 2014. It recognized that the CMO Headquarters continued to pay the rent until all budgetary arrangements were in place, after which payments were taken over by the relevant Ministry. Council thus noted that, unlike the previous years, the budget estimates for 2015 would no longer require the production of a deficit budget to allow for the payment of rent, as required by the CMO External Auditors.

7.4 Notwithstanding the above, Council discussed the fact that the 2015 budget estimates reflected an increase in personal emoluments. Council recalled that terms and conditions of service, including staff remunerations, were based on those at the CARICOM Secretariat (CCS) and that in October 2014, the CCS informed the CMO Headquarters that there had been a change in the CCS staff salary scales effective from January 1, 2013. Council expressed concern that the CMO Headquarters had not been given information by CCS on when the decision on these new salaries was made, although every year, requests were made for any changes in this regard. Council noted that the overall increase was in the order of 10% and that this change was not applicable to emoluments for Executive Management. Council noted that the new staff salaries had been built into the estimates for 2015 and that, to minimize the impact on the 2015 estimates, reductions had been made in other areas to ensure that any resulting increase in the estimates remained within manageable limits for the consideration of Council.

7.5 Council was reminded that the staff structure for the CMO Headquarters includes two professional staff positions, an *International Affairs Officer* and a *Project Development Officer*, that the Organization had not been able to fill, primarily because [Ref: Agenda items 3(a) and 6(c),] the payment of rent on the CMO premises until August 2014, along with the level of contributions to the Organization from Member States in 2014, made it risky to attempt the recruitment for these posts, particularly the *International Affairs Officer* in the first instance. The Council thus considered that the resolution of the rent issue for the Headquarters premises should provide a greater flexibility in the 2015 estimates to proceed with one of the new posts and that the filling of the post would then be decided by the level of contributions in 2015.

7.6 Council noted that in 2015, the full retirement from the CMO Headquarters of the Administrative Officer, *Miss Lynn Nimblett*, who had then served the Organization for forty years, would become effective. The 2015 budget estimates therefore included a short period of overlap between the outgoing and incoming Administrative Officers.

7.7 Council took into account that the 2015 budget estimates reflected a travel budget for a similar level of regional and extra-regional events as the previous few years. It noted that, in general, the extra-regional events that the CMO Headquarters should participate in were being kept to the essential ones only, to offset other travel-related expenditure, and that the Headquarters should continue its policy to “piggy-back”, as much as possible, on meetings funded by other organizations, such as the World Meteorological Organization (WMO), to undertake some of CMO’s regional and international activities. Council recognized a few exceptions, such as regional activities with the *International Civil Aviation Organization* (ICAO) in relation to aviation safety, international *Disaster Risk Reduction* efforts and the very special event of the 17th *World Meteorological Congress* (Cg-XVII) in Switzerland in May-June 2015, which were specifically included in the estimates. Council noted that the most critical of these was the *World Meteorological Congress*, the Governing body of WMO, which takes place every four years and sets the global programmes and activities in weather, climate, water and related sciences that impact on every nation of the world.

7.8 Council examined the 2015 Budget Estimates for the CMO Headquarters Unit, the Caribbean Rawinsonde Network and the Radar Network, which represented a 2.56 percent increase on the approved estimates for 2014.

7.9 Council therefore:

- (i) **Approved** the budget of TTD X,XXX,XXX.XX, based on the new CCS salary structure, and as detailed in **ANNEX IV**, with Member contributions as indicated in **ANNEX V**;
- (ii) **Urged** Members to give priority to meeting annual contributions, through quarterly, bi-annual or more frequent part-payments if necessary, and to make every effort to pay off arrears to the Organization;
- (iii) **Reminded** Members that when forwarding their contributions to CMO Headquarters by bank transfers, to deposit funds into the same currency account as the sum remitted;
- (iv) **Also Urged** Members to inform the CMO Headquarters of their transfer of funds, including the date, amount and currency, in order to overcome difficulties in properly identifying the origin of funds within the banking system;
- (v) **Noted** that the back-pay to Headquarters staff for 2013 and 2014 will be made out of 2014 resources;
- (vi) **Also Noted** that the CMO Headquarters would produce a draft revision of the contribution formula at the 55th session of the Council in 2015.

7(b) **CIMH Budget Estimates for 2015**

7.10 The Chairman of the Board of Governors informed the Council that CIMH presented the Estimates of Expenditure for the financial year 2015 to the Board of Governors for endorsement. The original total amount requested was BBD 7,372,186.00. After considerable discussions on the prevailing financial situation in the region, the Board decided that there would be no freeze on staff salary increments within the budget for 2015. However, it could not afford to fund an increase in the budget over the previous year. It therefore urged the Principal of the CIMH to try to reprioritize budget items within a restricted budget. In the process, the Board decided that a cap on the budget, based on the 2014 approved figure, would be recommended to Council for its review and approval.

7.11 The Chairman of the Board presented the Council with Revised Estimates of Expenditure of the CIMH for 2015 of BBD X,XXX,XXX.XX, the same figure as for 2014, for its approval.

7.12 **Council** held further deliberations on the proposal from the Board and then:

Approved the Estimates of Expenditure for 2015 of BBD X,XXX,XXX.XX for the CIMH, as presented by the Board of Governors. Member States' contributions based on that figure are indicated in **ANNEX V**.

8. **ANNUAL MEETING OF THE DIRECTORS OF METEOROLOGICAL SERVICES**

8.1 The Caribbean Meteorological Council considered the Report of the Annual Meeting of Directors of Meteorological Services, held on 22 November 2014, presented by Mr Glendell De Souza, Science and Technology Officer of the CMO Headquarters. The Report provided the Council with the following summary of the deliberations and recommendations of the Directors on a wide range of technical and scientific topics, which would have an impact on future costs, policy decisions, training opportunities and service delivery.

1. *Migration away from Traditional Alphanumeric Code Forms*

It must be noted that no Meteorological Service of CMO Member States had migrated to TDCF (MTDCF) and the migration to TDCF was scheduled to be completed in November 2014. The Meteorological Services in the Cayman Islands, Guyana and Trinidad and Tobago had submitted a Request for Change form to the Regional Telecommunication Hub (RTH) in Washington, which indicated that they would be transmitting synoptic observations in BUFR format from 5 January 2015.

There were plans for a complete overhaul of the Cooperative Hurricane Upper-Air System (CHUAS) network during the United States of America 2015 fiscal year. The overhaul would include new 403 MHz radiosonde systems, which included antennas, computers, radiosondes and operating software, which would generate the BUFR code. This overhaul would affect the Meteorological Services in Barbados, Belize, the Cayman Islands, Jamaica and Trinidad and Tobago.

2. *Quality Management Systems*

The Sixty-fifth meeting of the WMO Executive Council (Geneva, 15-23 May 2013) was informed of an agreement in principle between the relevant WMO and ICAO Secretariats that Member States not complying with the Recommended Practice of obtaining certification in accordance with the ISO 9001 Standard should, as a minimum, provide evidence for having achieved the following milestones:

- a) Evidence of a contractual arrangement between the Meteorological Authority and Service Provider with clearly established responsibilities;
- b) Availability of quality policy, quality manual and complete set of work instructions/process descriptions at all workplaces, and routine use of these documents by staff;
- c) Documented evidence of user consultation and feedback (publications, questionnaires, records of user meetings, actions stemming from these);
- d) Evidence of corrective and preventive action processes; and
- e) An internal audit plan, audit reports and documented follow-up decided by a Management Review meeting.

Some of the Meteorological Services were both the Meteorological Authority and the Meteorological Service Provider which would pose a difficulty since the Meteorological Service had to provide evidence that there was a contractual arrangement between the Meteorological Authority and the Service Provider with clearly established responsibilities. Further, under the regulations of the ICAO the Meteorological Authority was responsible for auditing the Service Provider.

3. *CMO Radar Network*

There was a recommendation which had been advocated by some of the Directors for some time, that the radar host countries pool their resources in order that radar training be provided to the staff on these countries in radar maintenance and radar interpretation at a reasonable cost.

4. *Implementation of Competency Standards for Aeronautical Meteorological Personnel*
The Meeting recalled the provisions concerning the required competencies for aeronautical meteorological personnel (AMP), including aeronautical meteorological forecasters (AMF) and aeronautical meteorological observers (AMO), included in the *WMO Technical Regulations* (WMO-No. 49, Volume I, Chapter 5), became standard practices as of 1 December 2013. Therefore, Meteorological Services were expected to undertake the necessary measures to ensure compliance with those standards and inform the WMO Secretariat. Further, the qualification requirements for AMF in the *WMO Technical Regulations* would become a standard practice on 1 December 2016.

5. *Information on Hazardous Meteorological Conditions, including enroute hazards*

The Meeting was informed that the conjoint meeting between the ICAO and the WMO Commission for Aeronautical Meteorology (CAeM) noted a proposal for the establishment of the regional hazardous weather advisory systems (RHWACs) and agreed that the establishment of the RHWACs should be actively pursued.

The Meeting was informed that to assist Meteorological Services which are also Meteorological Watch Offices (MWO), the following activities would occur shortly:

1. ICAO would have a Volcanic Ash SIGMET, Volcanic Ash Advisories, and Volcanic Ash ASHTAM or NOTAM Periodic Tests on 11 and 12 December 2014. Meteorological Services in Trinidad and Tobago, Jamaica and Guyana would be asked to take part in the tests and a list of all SIGMETs issued by MWO must be submitted to ICAO no later than 2 February 2015;
2. A workshop on the preparation, dissemination and interpretation of SIGMETs, which was scheduled to occur at the ICAO Office in Mexico in November 2014, would be rescheduled to early 2015 at a venue to be announced.

6. *Country Profile Database*

A presentation was made to the Meeting on the Country Profile Database (CPDB), which was under development and would soon be launched by the Secretary General of the WMO. In the current status of the CPDB, Type I countries are shown as separate countries like all other WMO Members. There is no indication in the CPDB that they are part of CMO. Type II and Type III countries are not currently in the CPDB. A proposed solution for the Type II and Type III could be as follows:

1. Each BCT country (Type II) would have individual entry under BCT. The Permanent Representative of BCT with WMO would assist in ensuring the information is valid/up-to-date;
2. For non-WMO Members (Type III), the information for each country could be validated by the Coordinating Director of the CMO, if so agreed between the Type III countries and CMO.

8.2 The Council:

Noted and **Amended** the Report of the 2014 Meeting of Directors of Meteorological Services.

9. CMO WEATHER RADAR NETWORK

(a) **Status of CMO Radar Network Operations**

Operational Status

9.1 The Council was informed that during 2014, the operations of the radar network were mixed. The radars in Belize, Grand Cayman, Barbados and Trinidad worked steadily during 2014, with short maintenance stoppages, in Trinidad. Jamaica and Guyana radars had significant periods of “down-time” for maintenance in the second half of the year. The CMO Headquarters was informed that Jamaica was considering acquiring an additional radar or replacing the existing radar with a new unit. The CMO provided some preliminary technical assistance towards its decision-making. The new radar in the Cayman Islands provides some coverage over Western Jamaica.

9.2 Council noted that all six Meteorological Services operated the following websites that provided access to the radar imagery:

Belize:	http://www.hydromet.gov.bz/
Cayman Islands:	http://www.weather.gov.ky/
Jamaica:	http://www.metservice.gov.jm/index.asp
Barbados:	http://www.barbadosweather.org/
Trinidad:	http://www.metoffice.gov.tt/
Guyana:	http://www.hydromet.gov.gy/

9.3 The Council in the past had been encouraging greater publicity for the websites and improved user-friendliness for the public and special users, particularly disaster management agencies and the aviation sector. The CMO Headquarters routinely reviewed the websites and continued to note the lack or insufficient use of radar data by regional television networks. Television weather presenters often referred to the local weather conditions without reference to the available radar imagery and which sometimes clearly differed from the radar information. It should be noted that the operations of the regional radars are for the use of the entire region and not just for the Member States that operate them. In other words, the radars, in almost all cases, cover several neighbouring States so that the use of radar imagery by the media should become widespread through the region and not only by media or other entities in the States where the radars are located.

9.4 The Council was informed that an informal check of television stations among the islands has shown that radar loops form part of the weather presentations only in the Cayman Islands, Jamaica, Antigua and Barbuda and Dominica. In addition, disaster managers and the media, in particular, should be made aware that, because several of the radars overlap, another radar could be utilized in some instances when the regular one may be temporarily unavailable.

9.5 In this regard, Council again strongly advised that each Meteorological and Hydrometeorological Service operating radars make use of the local print media to publicize the existence of their websites in general and the availability of the radar images, and for Services in neighbouring islands to provide their public and media with links to the websites of the radars that cover their States.

(b) Operations of the Regional Radar Composite and other Regional and International Obligations

9.6 Council noted that with the inclusion of the Cayman Islands radar, the regional radar composite would have nine radars when completed (excluding the Dominican Republic radar). The radar at the eastern end of the Dominican Republic had not been operational for some time, but hopefully it could be added in the future, along with the radar in Puerto Rico. The functioning of this composite was highly dependent on the telecommunication protocols being followed carefully and the radar content following agreements. Council took note that not all the radars in CMO Member States had been able to maintain consistent and timely transmissions to the composite system at the French Meteorological Service (Météo-France) centre in Martinique via WMO's *Global Telecommunications System (GTS) Internet File Service (GIFS)* server in Washington, DC.

(c) New MOU with Météo-France and Input to WIGOS Regional Implementation Plan

9.7 Council was reminded that the radar composite formed by the radars in the French Departments of Guadeloupe, Martinique and French Guiana, along with those in the CMO Member States, was established through a *Memorandum of Understanding (MOU)* between Météo-France and the CMO in 2009. The period of the MOU was five years, thus ending in 2014. The MOU made provision for a renewal, stating that "Four and one half (4.5) years from the Starting Date, or earlier if agreed, the Parties shall enter into negotiations for a renewal of this Memorandum for a further five (5) years". Council noted that the CMO Headquarters and Météo-France had thus started discussions in this regard. Council endorsed the principle of a new MOU between CMO and Météo-France, which would be an update of the earlier MOU. The CMO Headquarters would provide the negotiated MOU to the CMO Member States that operate weather radars for their comments and agreement before it was signed.

9.8 The Council was informed that as a back-up to the Météo-France composite, the Barbados Meteorological Service had also created a similar regional radar composite which was available in sectors through its webpage at: http://www.barbadosweather.org/BMS_radar_Composite.php. The Barbados-created composite could form part of the Météo-France/CMO Memorandum, subject to a formal long-term commitment by Barbados and agreements with Météo-France, especially as this would also contribute to the Regional Implementation Plan of the *WMO Integrated Global Observing System (WIGOS)*.

(d). Training Issues

9.9 Council recalled the 13.2 million Euro *CMO Weather Radar Project*, funded by the European Union through the Caribbean Forum of ACP States (CARIFORUM) and implemented by the CMO between 2004 and 2009. Under this major Project, the large *Radar Meteorology Training Programme* had been eliminated by the funding agency. This was a very major element in the Project to provide training in the interpretation of radar data to the meteorological staff that operate and utilize the radars. Initially, the CMO Headquarters considered seeking funds for a scaled-down training programme, but it subsequently became evident that a scaled-down programme may not adequately meet the needs of the region.

9.10 During 2014, various training options were examined and there was a suggestion that a tailored training scheme could be mounted for the staff at the six radar locations. Considerations were being given to the use of the training facilities at the CIMH for portions of the training, with another portion to be conducted at the radar sites themselves, or conducting the entire training at the radar sites. The CMO Headquarters had been exploring the possibility of carrying out this radar training under another regional project, such as the Finland-funded SHOCS-II Project. If funds were available, consideration would also be given to some training for technicians. The Meteorological Services would need to work very closely with the CMO Headquarters during 2015 to make these proposals come to fruition.

9.11 The Council was informed that most modern operational weather radars operate in the *S- and C-bands* (10 and 5 cm). The choice of operating wavelength depended on the intended use. Radar signals at the shorter wavelengths experience significant signal attenuation (weakening) in heavy precipitation. However S-band radars are *not easily attenuated* in the atmosphere or in heavy weather because of the wavelength and frequency, that is, this bandwidth is the least susceptible to attenuation caused by rainfall. This makes them very useful for near and far-range weather observations (typical ranges 300-500km). S-band weather radars were primarily utilized for the observations of severe storms and hurricanes in the tropics and on islands or coastlines where there are no other observations for a great distance. The only apparent drawback to the S-band radar was that it required a large antenna dish and a large motor to power it, making it more expensive than other radars.

9.12 The shorter wavelength C-band radars were known to experience significant attenuation in heavy precipitation, particularly as the distance from the radar increased, the Council was informed. Therefore, because the signal was more easily attenuated, C-band radars were best used for short-range weather observation (typical ranges 200-250km) and in areas of great multiple radar coverage over a large area. The frequency allowed a C-band radar to create a smaller beam width using a smaller dish and also it does not require as much power as a S-band radar.

9.13 The Mitsubishi-made weather radars in the old CMO radar network from the 1970s, as well as the existing Jamaica radar and all the new radars installed by the CMO under the EU-funded projects, are 10cm S-band radars. With the exception of the *Cayman Islands radar*, these radars operate with a horizontally polarized beam. Weather radar's prime purpose is to detect weather targets (raindrops, hail, and ice). However, radars also detect non-meteorological objects; that is, any other target which was able to return some of the transmitted energy. Echoes from these non-meteorological targets are typically called clutter. Clutter can result from the land surface, the sea surface, buildings, aircraft, insects, birds, etc. The single-polarized weather radars are equipped with a specific software filter to eliminate the clutter signals. However, the performance of these filters can be insufficient, especially in case of heavy clutter from the sea surface.

9.14 The Council was informed that the CMO decided upon a dual-polarized S-band radar for the Cayman Islands to effectively eliminate the non-meteorological echoes – or clutter due to the flat topography and the presence of the Caribbean Sea around the island. Since the radar began operations early in 2013, it has been producing virtually clutter-free data. Another major advantage of a dual-polarized radar was that quantitative estimation of rainfall intensities, especially in case of torrential rains, was significantly more precise than with a single-polarized radar. This was particularly useful on islands where, because of the small size, it is difficult or impossible to have a rain gauge network large enough to provide ground-truth of rainfall amounts.

9.15 Council was informed that dual-polarization would, in the near future, quite likely become the operational standard. As a result, over the next year or two, the CMO Headquarters, in collaboration with the CIMH and the NMHSs operating radars, would review as much of the data as possible from the radars in the CMO Radar Network to determine which radars, if any, would benefit from an upgrade to dual-polarization in the future.

9.16 **The Council:**

Noted the status of the weather radars in the CMO Member States;

Reiterated its call for the Meteorological Service operating radars to fully publicize their websites, and for all Services to work towards the greater use of live radar data by regional television stations;

Urged the urgent resolution of all technical issues for the proper operations of the regional radar composite and the access to radar data by special users, such as the US National Hurricane Center;

Endorsed the principle of a new MOU between CMO and Météo-France to be concluded following input and agreement by the CMO Member States operating the radars;

Supported the Headquarters' efforts to organize a radar training programme;

Supported Further the proposal to determine which radars, if any, would benefit from an upgrade to dual-polarization in the future.

10. **OTHER PROJECTS AND PROPOSALS**

(a) **Finland Initiative - Strengthening Hydrometeorological Operations and Services in the Central America and the Caribbean (SHOCS-II)**

10.1 Council was reminded that between the years 2001 and 2004, the Government of Finland funded the SIDS-Caribbean Project titled "*Preparedness to Climate Variability and Global Change in Small Islands States, Caribbean Region.*" This was followed by a *needs assessment and feasibility study project* entitled "***Strengthening Hydrometeorological Operations and Services in the Central America and the Caribbean (SHOCS).***" The Project was implemented by the Finnish Meteorological Institute (FMI) under the direction of the *Association of Caribbean States (ACS)*, in collaboration with WMO and CMO. The CMO was a member of the Project Board, along with the ACS, WMO, the Caribbean Emergency Management Agency (CDEMA) and FMI.

10.2 The feasibility phase of SHOCS, called Phase I, was implemented between 2010 and 2012. A Phase II, called SHOCS-II, was formulated in 2013 with implementation starting in 2014. The CMO Member States participating in SHOCS-II were Antigua & Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts & Nevis, Saint Lucia, St. Vincent & the Grenadines and Trinidad & Tobago. The other States participating were the Bahamas, Cuba, the Dominican Republic, Haiti and Suriname. The beneficiaries of the Project have been the Meteorological and Hydrological Services (NMHS) and Disaster Management Agencies of the above States, along with the CIMH as a regional institution.

10.3 The Council was informed of the results which were achieved during 2014:

- Preparation of a stand-alone software solution for real-time management and issuing of weather warnings for NMHSs (or DMAs). The software will produce messages in XML format compatible with Common Alerting Protocol standard. Pilot NMHSs selected for testing the software are Cuba, Antigua and Barbuda and Jamaica. The software was ready for test use from September 2014.
- An open tender on the TV broadcasting solution was launched in June 2014. Installation and initial training in Cuba was targeted for November-December 2014, outside of the hurricane season. Training workshops are planned during the early part of 2015 for the TV presenters from other Caribbean NMHSs.

10.4 The following activities were possible for SHOCS II to continue in 2015:

- Extend training on forecasting tools
- Training on radar
- Advance development of service products
- Enhance methodology to issue early warnings
- Ensure sustainable use of the systems install.

(b) **Lightning Detection System**

10.5 Council recalled that the CMO Headquarters had, for some time, studied the possibility of establishing a ground-based Lightning Detection System in the region. The CMO Headquarters was of the opinion that such a system was very necessary in the Caribbean. The 52nd session of the Council (November 2012) was provided with a visualization of a long-range lightning detection system, which provides data over the oceanic areas associated with weather systems that are well outside of radar range. At the shorter distances, however, higher accuracy and thus a high resolution detection are both necessary, especially if lightning data is required for specific sensitive locations and activities. Although the long-range systems still provide very useful information at the shorter ranges, they were best used in conjunction with short-range systems. Therefore, for this higher resolution to be achieved, it would be necessary to install some lightning sensors along the island chain to allow for adequate triangulation using the commonly known phenomenon "lightning spheric."

10.6 There were three basic options for consideration for an island-chain set of ground-based sensors; (i) the number and location of processing units for the data; (ii) the mode of transmission among the countries involved and (iii) the method of paying for the system. A further issue for consideration was to build onto existing lightning systems owned by non-regional entities and then subscribe to the service, as is done by many countries. The CMO Headquarters had considered the costs proposed by some of the vendors. To-date, ***no realistically affordable solution for the CMO Member States had been identified.***

(c) **Other CMO Project Proposals**

(1) **Regional component of the WMO Integrated Global Observing System (WIGOS)**

10.7 Council was provided with the latest plans for implementation of the Region's component of the *WMO Integrated Global Observing System* (WIGOS). WIGOS was an all-encompassing approach to the improvement and evolution of WMO's global observing systems. The implementation of the WIGOS was very closely related to the new ***WMO Information System*** (WIS), both of which were essential to all technical and scientific activities of Meteorological Services in the Caribbean and worldwide. The CMO Headquarters plays a major regional and international role in the implementation of WIGOS and WIS.

(2) A Caribbean initiative in the field of early warning systems, integrating Carib Risk Cluster objective

10.8 The Council was reminded that since 2013, the Caribbean Meteorological Organization had been collaborating with the Meteorological Service of France (Météo-France) under a European Union-funded project entitled “**Caribbean Cluster on Natural Risks and Risks from the Sea**”, (acronym **Carib Risk Cluster**). The Project was being implemented by the **General Council of Martinique**.

10.9 A major component of the Carib Risk Cluster project was the implementation of Météo-France “**SHERPA**” initiative. SHERPA’s aims were:

- Improving the availability of upfront meteorological expertise, made available to Météo-France, for exclusive use by neighbouring Caribbean National Meteorological Services, including Haiti.
- Setting up an exchange platform, in real time, to improve coordination between neighbouring Caribbean territories, for a better management of extreme meteorological events, especially outside or on the periphery of tropical cyclones.

10.10 Council was informed that SHERPA was a secured WEB platform (Extranet) to share and make available products and information useful to the analysis, and to the forecasting of potentially dangerous meteorological phenomena in the Caribbean, including:

- Products to improve the use of observation data (radars, wave riders, satellite imagery...);
- Numerical Weather Products based on the French models (ARPEGE/ALADIN) and on the ECMWF models.

10.11 The National Meteorological and Hydrometeorological Services in CMO Member States and the Organs of the CMO have access to other platforms that may have a similar purpose as SHERPA. However, the use of SHERPA was encouraged as a tool for meteorologists in the forecast and warning process, and as a common platform that could be used for coordination among NMHSs in the process. CMO Headquarters and Météo France would continue to examine ways to increase and refine the utility of SHERPA in the region.

10.12 The Council:

Noted the updated information and **Provided** guidance necessary on

- (i) The Finland-funded Project for the *Strengthening Hydrometeorological Operations and Services in the Central America and the Caribbean* (SHOCS II),
- (ii) Lightning Detection System and
- (iii) Other projects planned by or involving the CMO Headquarters.

11. ANY OTHER BUSINESS

11.1 The terms and conditions of employment of the Principal of CIMH were discussed and resolution sought on matters which had been under discussion since 2008. The Chairman convened a brief meeting to discuss the matter, upon which An Ad-hoc Human Resource Committee was created, comprising Mr Denzil Jones (Montserrat, Chairman), Ms Vidiah Ramkhelawan (Trinidad and Tobago) and Mrs Corsel Robertson (St. Vincent and the Grenadines), with a mandate to look at the administrative procedures and processes at both CMO Headquarters and CIMH, particularly in relation to the recruitment, employment and retention of key post holders, such as the Co-ordinating Director of CMO and the Principal of the CIMH.

11.2 There was no specific other business for discussion at the session.

12. DATE AND VENUE OF CMC55 (2015)

12.1 **The Council:**

Thanked the Government of Jamaica for hosting this 54th session and related meetings and for the warm hospitality extended and the excellent arrangements put in place for the conduct of the business of CMC54;

Expressed its thanks to the Chairs for their excellent conduct of the session.

Close of Meeting

12.3 There being no other business, the Meeting ended with an exchange of courtesies.

AGENDA

1. OPENING OF SESSION AND ELECTION OF CHAIRMAN
2. ADOPTION OF AGENDA AND PROCEDURAL MATTERS
3. CMO EXECUTIVE REPORTS
 - (a) Coordinating Director's Report
 - (b) CIMH Principal's Report
 - (c) CIMH Board of Governors' Report
4. STATUS OF ACTIONS FROM PREVIOUS SESSION
5. SPECIAL CMO AND WMO ISSUES
 - (h) Outcome/Highlights of the 2014 Executive Council (EC) of the World Meteorological Organization
 - (i) Implications of the Extra-ordinary session of the WMO Commission for Basic Systems (CBS-Ext) for CMO Members
 - (j) Implementation of the *Global Framework for Climate Services (GFCS)*
 - *Intergovernmental Board for Climate Services (IBCS)*
 - Status of RCCs & RCC Barbados "in demonstration phase"
 - WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the GFCS
 - (k) Aeronautical Meteorological Services – Current and Future Activities
 1. Status of regional Quality Management Systems (QMS)
 2. Staff Competencies and Training
 3. QMS Auditing – developing a system among CMO Member States
 - (l) WMO Capacity Development Initiatives
 - (m) WMO Regional Training Centres - WMO Global Campus Proposal
 - (n) The World Meteorological Congress 2015

6. FINANCIAL REPORTS
 - (a) Status of Refundable Balances
 - (b) CMO HQ - Auditor's Report
 - (c) Statement of Contributions and Arrears (CMO HQ & CIMH)
 - (d) CMO Headquarters Staff Matters
 7. CMO BUDGETS (Headquarters Unit, CRN and Radar, CIMH)
 - (a) CMO HQ Budget Estimates for 2015
 - (b) CIMH Budget Estimates for 2015
 8. ANNUAL MEETING OF THE DIRECTORS OF METEOROLOGICAL SERVICES
 9. CMO WEATHER RADAR NETWORK
 - (a) Status of CMO Radar Network Operations
 - (b) Operations of the Regional Radar Mosaic and other International obligations
 - (c) New MOU with Météo-France and Input to WIGOS Regional Implementation Plan
 - (d) Dual Polarization of Radars
 10. OTHER PROJECT UPDATES AND PROPOSALS
 - (a) Finland Initiative - Strengthening Hydrometeorological Operations and Services in Central America and the Caribbean (SHOCS II)
 - (b) Lightning Detection Systems
 - (c) Other CMO Projects/Proposals
 11. OTHER MATTERS
 12. DATE AND VENUE OF CMC55 (2015)
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ANNUAL MEETING OF THE CARIBBEAN METEOROLOGICAL COUNCIL

KINGSTON, JAMAICA

24-25TH NOVEMBER 2014

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<at> replaces @ in the e-mail addresses to prevent computer-generated spam

THE CARIBBEAN METEOROLOGICAL ORGANIZATION HEADQUARTERS
STAFF TERMINAL BENEFIT FUND

Original Text for Amendment:	Approved Amendment (shaded text):
<p style="text-align: center;"><u>WHEREAS</u></p> <p>A. The Employer has determined to establish a STAFF TERMINAL BENEFIT FUND PLAN (hereinafter called “the Plan”) for the purpose of securing lump sum payments of moneys for such of its present and future employees employed at the Headquarters Unit in Trinidad and Tobago.</p> <p>B. The employer has agreed to undertake to pay every month fifteen percent of each employee’s salary into the Plan which will be payable in a lump sum, upon an employee satisfying the conditions of service listed at clause 1.</p> <p style="text-align: center;">NOW THIS DEED WITNESSETH as follows:-</p> <p>1. The object of the Plan is to provide for employees a lump sum payment on retirement or resignation, subject to the fulfilment of any one of the conditions of service listed hereunder:</p> <ul style="list-style-type: none"> i) On retirement at age not less than fifty five (55) years, or ii) On resignation after not less than ten (10) years of service or pro-rated between 6 – 10 years, or iii) On retirement on grounds of ill health certified by a medical practitioner nominated or approved by the Trustees, or iv) Due to redundancy. 	<p style="text-align: center;"><u>WHEREAS</u></p> <p>A. The Employer has determined to establish a STAFF TERMINAL BENEFIT FUND PLAN (hereinafter called “the Plan”) for the purpose of securing lump sum payments of moneys for such of its present and future employees employed at the Headquarters Unit in Trinidad and Tobago.</p> <p>B. The employer has agreed to undertake to pay every month fifteen percent of each employee’s salary into the Plan, or at the rate determined under the CARICOM Conditions of Service that apply to staff at the Caribbean Meteorological Organization Headquarters Unit, which will be payable in a lump sum, upon an employee satisfying the conditions of service listed at clause 1. The employer will also pay into the Plan for staff on short-term contracts, in accordance with the terms of the individual contracts. Contracts that are renewed will continue to function as part of the Plan.</p> <p style="text-align: center;">NOW THIS DEED WITNESSETH as follows:-</p> <p>1. The object of the Plan is to provide for employees a lump sum payment on retirement or resignation, subject to the fulfilment of any one of the conditions of service listed hereunder:</p> <ul style="list-style-type: none"> i) On retirement at age not less than fifty five (55) years, or ii) On resignation after not less than ten (10) years of service or pro-rated between 6 – 10 years, or iii) On retirement on grounds of ill health certified by a medical practitioner nominated or approved by the Trustees, or iv) Due to redundancy. v) At the end of a contract period, as determined by the terms of each individual contract.

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