



# FINAL REPORT OF THE FORTY-NINTH MEETING OF THE CARIBBEAN METEOROLOGICAL COUNCIL



**CHAIRMAN:**

Hon. Julian Fraser, R.A.  
Minister of Communications & Works  
**BRITISH VIRGIN ISLANDS**

**VENUE AND DATE:**

Brumant Fellowship Hall  
**Tortola,**  
**BRITISH VIRGIN ISLANDS**  
09-10 November 2009



## **1. OPENING OF THE SESSION AND ELECTION OF CHAIRMAN**

1.1 At the kind invitation of the Government of the British Virgin Islands, the Forty-Ninth Annual Meeting of the Caribbean Meteorological Council (CMC) was held at the Brumant Fellowship Hall, Tortola, on 9-10 November 2009.

1.2 Ms Diana Maduro, Deputy Managing Director of the BVI Airports Authority, commenced the Opening Session of the Meeting by extending words of welcome. After a prayer was offered by Pastor George Rodney, Mr Denniston Fraser, Managing Director of the BVI Airports Authority addressed the session on behalf of his Permanent Secretary. Mr Tyrone Sutherland, Coordinating Director of the Caribbean Meteorological Organization (CMO), delivered brief remarks, while the feature address was delivered by the **Hon. Julian Fraser**, R.A., Minister of Communications and Works of the British Virgin Islands. The Vote of Thanks was delivered by the **Hon. Haynesley Benn**, Minister of Agriculture of Barbados.

1.3 The Meeting elected the Hon. Julian Fraser, R.A., as the Chairman of the Caribbean Meteorological Council for its 49<sup>th</sup> session and the period until the next annual meeting of the Council.

## **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. A List of Delegates attending the Meeting is attached as **ANNEX II** to this Report.

## **3. CMO HEADQUARTERS UNIT MATTERS**

### **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. Major activities of the CMO Headquarters were related to the end of the implementation phase of the EU-funded Weather Radar Project, which came to its formal end on 30 June 2009, but which was followed by a time-consuming closure phase that continued throughout the rest of the year.

3.2 The Council took note of the numerous and important activities of the World Meteorological Organization (WMO) that required major focus and involvement of the CMO Headquarters, including several emerging international issues that will seriously impact on the operations of the National Meteorological and Hydrometeorological Services in CMO Member States in the near future. In this regard, the Council was pleased to note that the Coordinating Director had strengthened his team of Advisors on WMO matters.

3.3. The Council was pleased with the very successfully hosting by the CMO Headquarters of the 61<sup>st</sup> Meeting of the WMO **Bureau** and the 9<sup>th</sup> **WMO Consultative Meeting on High-level Policy on Satellite Matters**, in Port of Spain in January 2009. The Council noted that the WMO President, Vice-Presidents and the Secretary-General, as well as senior representatives of all the weather satellite operators and Space Agencies around the world, participated in these sessions, and was of the opinion that two very high-level and prestigious WMO meetings had enhanced the image of the Caribbean region as a whole, Trinidad and Tobago and the CMO itself.

3.4. The Council was pleased to note that matters concerning the accommodation arrangements of the CMO Headquarters building in Port of Spain, following its relocation in early 2008, appeared to be moving positively towards conclusion. It noted information that the owner of the premises had been awaiting receipt of the necessary approvals following his submission of outstanding documentation required by the Government of Trinidad and Tobago. Nonetheless, the Council was hopeful that discussions that had been initiated in Trinidad and Tobago for a more stable and suitable long-term solution to the CMO accommodation, in keeping with the Host Country Agreement on the CMO, would still be realized.

3.5 The Council noted that the CMO's ability to undertake activities on behalf of and for the benefit of Member States was continuously being seriously impacted by poor receipt of financial contributions to the institutions of the CMO. In this regard, 2009 has been one of the most difficult years for the receipt of financial contributions to the Organization by Member States. This is examined in detail under Agenda Item 6.

3.6 In this regard, the Council was made aware that the long-standing practice of providing financial support to representatives of the Meteorological and Hydrometeorological Services to attend the Meetings of Directors and, in some instances, the Council sessions, was becoming more and more difficult to be maintained. Over the recent years, the cost of such support had been rising steadily, but the level of contributions received posed particular difficulties for the Headquarters.

3.7 The Council paid tribute to a few key members of the meteorological community in the Caribbean. In this regard, the Council expressed thanks and best wishes to **Mr Carlos Fuller** and **Mr Ramon Frutos**, Chief Meteorologist and Acting Chief Meteorologist respectively of the Meteorological Service of **Belize** for their contribution to the region. The Council was high in praises for **Mr Chester Layne**, Director of the Meteorological Services of **Barbados**, for his outstanding contribution to his nation, the region and the wider meteorological community. After 43 years of service, Mr Layne had indicated his intention to retire in the near future.

3.8 The Council expressed its surprise and great disappointment at the non-participation in this session of the Council by a representative of the Secretary-General of CARICOM or any official of the Caribbean Community Secretariat (CCS). The Council noted that it was the first time in memory that such a situation had arisen. The Council was aware of the difficult financial position of the CCS in 2009, but noted that, as the CMO is an Organization of the Caribbean Community under the Treaty of Chaguaramas, its sessions are statutory meetings attended and supported by the CARICOM Secretariat. The Council was informed that the non-participation of the CCS was at odds with its continuing strong participation in and support for other regional meetings. The Council also noted that in recent years, due to financial constraints, the CCS had requested a reduction in its staff support, which the CMO Headquarters had picked up. The Council expressed its hope that such financial constraints would not lead to a trend for lower Secretariat participation and support in the future.

### 3.9 THE COUNCIL:

**Commended** the effort and the internal arrangements of those Member States that managed to meet their contribution commitments to the Organization;

**Decided** that a strong letter be sent to the Secretary-General of CARICOM, expressing its disappointment about the non-participation of the CCS in the 49<sup>th</sup> session of the CMC.

### 3(b) Status of Refundable Balances

3.10 The Council was presented with the current status of the CMO Member Refundable Balances of reimbursements from the United Kingdom held by the CMO Headquarters Unit. The refundable balances account, at 15 October 2009 in TT\$, was as follows:

<u>BCT</u>		<u>CMO MEMBERS OF WMO</u>	
Anguilla	66,873.00	Antigua & Barbuda	-241.17
Br. Virgin Is.	67,787.01	Barbados	73,167.84
Cayman Is.	107,334.11	Belize	6,201.29
Montserrat	51,485.39	Dominica	6,960.25
Turks & Caicos Is.	41,532.31	Guyana	40,527.07
		Jamaica	67,524.90
		St. Lucia	32,456.17
		T'dad & Tobago	84,046.77
	<u>\$335,011.82</u>		<u>\$310,643.12</u>
	=====		=====

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

3.11 By Member's consent, these funds are held by the CMO Headquarters Unit to assist Members in attending important Met/Hydro Meetings, and also to purchase spares. The Coordinating Director noted that these funds have been used very effectively in pursuit of these objectives.

3.12 Council was reminded of a decision of the 47<sup>th</sup> Session of the Council (2007), which stated that each Session of the Council must be provided with the actual amount of refundable balance that each Member State was entitled to, which was as follows:

<u>BCT</u>		<u>CMO MEMBERS OF WMO</u>	
Anguilla	66,873.00	Antigua & Barbuda	0.00
Br. Virgin Is.	67,787.01	Barbados	73,167.84
Cayman Is.	107,334.11	Belize	6,201.29
Montserrat	51,485.39	Dominica	3,400.00
Turks & Caicos Is.	41,532.31	Guyana	40,527.07
		Jamaica	1,000.00
		St. Lucia	32,456.17
		T'dad & Tobago	84,046.77
St. Kitts & Nevis	83.74		

### 3.13 THE COUNCIL:

**Noted** the status of the Refundable Balances Account, as presented;

**Urged** the Coordinating Director to ensure that the method of drawdown on the Refundable Balances by Member States was very formal and clearly auditable at the CMO Headquarters end and the Members' end.

### 3(c) **Auditor's Report**

3.14 The Coordinating Director presented the audited accounts for 2008 of the CMO Headquarters, which were audited during April and May 2009 by the Trinidad and Tobago Auditor General's Department.

3.15 The Council recalled that, at its 48<sup>th</sup> session in Guyana (December 2008), it requested a detailed explanation of the Accumulated Surplus shown in the Statement of Accounts. This explanation is shown in **ANNEX III** to this Report.

3.16 There was considerable discussion on the state of the accumulated arrears of contribution by Member States to the Organization, as reflected in the Auditor General's Report.

### 3.17 THE COUNCIL:

**Noted** the audited Statements of Accounts for 2008;

**Urged** the Coordinating Director to provide statements of arrears to the Permanent Secretaries in the relevant ministries of Member States on an annual basis.

## 4. **STATUS OF ACTIONS FROM THE PREVIOUS SESSION**

4.1 The CMO Headquarters produced 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.

4.2 In this regard, a summary of the decisions of CMC48 (Guyana, 2008) was prepared by the CMO. The Coordinating Director gave the status of actions taken to implement these decisions to Council.

## 5. **STRENGTHENING THE CMO HEADQUARTERS - IMPLEMENTATION OF INSTITUTIONAL REVIEW RECOMMENDATIONS**

5.1 The Council recalled that, at its 48<sup>th</sup> session (Guyana, 2008), it had agreed that there was an urgent need to strengthen the operational organs of the CMO (the CMO Headquarters and the CIMH), as recommended by the 2004 Institutional Review of the CMO. In this regard, the Council agreed that, as a matter of urgency, the proposed CMO Headquarters staff positions of *International Affairs Officer* and *Project Development Officer* should be provided for in the 2010 budget and that a Sub-Committee of the Council, comprising representatives of Barbados, Saint Lucia and the CMO, should develop job descriptions for the required positions and determine the exact financial implications of the recruitment in 2010.

5.2 The Council reviewed the job descriptions and unanimously reaffirmed its view on the importance of these posts. However, since its 2008 decision was linked to the 2010 budget proposal, it deferred its decision on the filling of the posts to its deliberation on Agenda item 6.

## **6. CMO BUDGETS (Headquarters Unit, CRN and Radar)**

### **6(a) Budget Estimates for 2010**

6.1 The Council examined the CMO Headquarters' Budget Estimates for 2010. The document was presented with two options. The Coordinating Director informed the Council that the CMO Headquarters followed the directive of the 48<sup>th</sup> session of the Council on the two new posts described under Agenda Item 5 above. At the same time, it took into account that there had been major negative changes in the regional and international financial situation that impacted on those budgetary recommendations. For this reason, Option 1 represented estimates that did not include the recommendations of CMC48, while Option 2 made provisions for those recommendations.

6.2 In this regard, the Council noted that Option 1 reflected the status quo, primarily accounting for the normal incremental movement in personnel emoluments, but offset by the non-inclusion of special items that were included in the previous budget, so that the 2010 Budget Estimates represented a small decrease of 0.73 percent over the approved 2009 budget. On the other hand, Option 2 provided for six months emoluments and related expenses and represented an increase of 10.32 percent over the approved 2009 budget if both posts were filled, an increase of 5.73 percent if the post of *International Affairs Officer* only was filled, and an increase of 3.86 percent if the post of *Project Development Officer* only was filled.

6.3 The Council deliberated extensively on the pros and cons of the two budgetary options presented. It was felt that, notwithstanding the clear importance and urgency of filling the new posts, the prevailing economic situation in Member States precluded any possibility of budgetary increases for 2010. In this regard, the Council decided to keep the timing of filling the posts under review until the economic situation would become more favourable.

### **6.4 THE COUNCIL:**

**Approved** the Estimates of Expenditure of **TT \$3,568,503.00**, representing Option 1, with Member contributions as indicated in **ANNEX IV** to this Report;

**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;

**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;

**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.

## **6(b) Statement of Contributions and Arrears**

6.5. The Council recalled that for many years, both operational arms of the CMO, namely the CMO Headquarters Unit and the CIMH, had been forced to operate under very difficult circumstances because of the large arrears of contributions by Member States. The Caribbean Meteorological Council (CMC), as the Governing Body of the CMO, had constantly urged Member States to rectify the situation by making regular payments to the current budget estimates and by establishing a plan to pay off arrears.

6.6 For a number of years, the Auditor General of Trinidad and Tobago had made reference to the state of arrears in the Report on the Financial Statements of the CMO, as referred to in Agenda Item 3(c). The Council noted that there were some Member States that routinely made their full annual contributions in a timely manner, and there were States that also made their full contribution but in an inconsistent manner, often very late in the year. On the other hand, there were some States that failed to make their full contribution, as well as States that failed to make any contribution at all. It noted that 2009 had been, to date, one of the most difficult years on record for the CMO Headquarters in terms of contributions received and the timeliness of receipt. As of 23 October, only 63% of the 2009 contributions had been received. The Council took particular note that only because of an advanced 2009 payment made by Trinidad and Tobago late in 2008, was the Headquarters able to pay salaries in the first few months of 2009, for which the CMO Headquarters and the Council expressed their gratitude.

### **6.7 THE COUNCIL:**

**Noted** the Statement of Arrears of Contributions to the CMO Headquarters;

**Urged** the Coordinating Director and the Principal to continue efforts to recoup arrears as well as exploring all avenues to bring these matters to the attention of the highest level in Government;

**Also noted** the commitment expressed by the Head of the Barbados Delegation to raise the matter on every available opportunity at the ministerial level.

## **6(c) REVISED CMO HEADQUARTERS BUDGET ESTIMATES - 2009**

6.8 The Council recalled its directive that, whenever the CMO Headquarters incurred expenses significantly different from the approved budget estimates, the Council would be presented with a revision of the estimates for that year for its consideration and approval. This practice was also in keeping with the requirements set out by the Auditor General of Trinidad and Tobago.

6.9 The Coordinating Director provided the Council with revised Budget Estimates for CMO Headquarters 2009 that showed unavoidable expenses relating to (i) the EU-funded CMO Weather Radar Project, (ii) CMO Headquarters relocation expenses and (iii) activities for the preparation of the new Cayman Islands radar Project. The Council noted that, had the CMO Headquarters not undertaken the radar expenses, the Guyana component of that project could have collapsed. It also noted that expenses incurred due to the Cayman Islands radar would be reimbursed under that Project. The revision amounted to an additional TT \$344,975.00 or 11.51% with the Cayman Island radar expenses included, and TT \$194,975 or 6.50% if excluded.

## 6.10 THE COUNCIL:

**Approved** the revision of the 2009 Budget Estimates for the CMO Headquarters Unit, as presented above.

## 7. CIMH MATTERS

### 7(a) Board of Governors' Report

7.1 Chairman of the Board of Governors, **Mr Michael King**, Permanent Secretary in the Ministry of Agriculture, Barbados, presented the Council with the CIMH Board of Governors' Report.

7.2 Mr King's presentation highlighted the main thrusts of the issues discussed, including CIMH Programmes and Activities; Administrative and Personnel Matters. The two presentations were highlighted, namely **Dr. Jan Vermeiren's** "*A Natural Catastrophe risk transfer pool for the Caribbean,*" and **Mr Adrian Trotman's** presentation on the "*Caribbean Agrometeorological Initiative (CAMI).*"

7.3 The collaboration between the Caribbean Catastrophe Risk Insurance Facility (CCRIF) and the CIMH, through a Memorandum of Understanding which compensated CIMH for the delivery of training on CCRIF related products in the Caribbean region, was highlighted. The Chairman also stated that CCRIF was interested in establishing a scholarship fund that would allow Haitian students to study meteorology in the CIMH programmes.

7.4 Clarification was sought as to the language that would be used in providing training to Haitian students at CIMH. The Principal indicated that all training courses at the CIMH were in English. It was revealed that personnel from the Haitian Meteorological Service had a poor record for attendance at workshops and seminars, even when funding and translation services were provided. The Council therefore recognized that there would be difficulties in providing training in English to Haitian students at CIMH.

7.5 The arrears of contribution of Member States were brought to the attention of the Council, which stood at Bd\$15,035,967.97 as at 30 September 2009. The Council stated that it was imperative that Members should stay current with their contributions and seek to reduce their arrears over a period of time. The Council further stated that the state of the arrears should be brought to the attention of the Heads of States of CARICOM, given the importance of the CIMH to the region.

7.6 The principal **Representative of Barbados** indicated that every forum will be used to showcase CIMH's importance to the region, including projects such as the **€20,338.20** CAMI Project which aims to increase and sustain agriculture in the region. The Council agreed that its Chairman should correspond with the Ministers responsible for Meteorology and Hydrology in each Member State, indicating the difficulties caused by the non-payment of contributions and to try to recoup the contributions.

7.7 The **Representative of Jamaica** reminded the Council that Jamaica was the third largest contributor to the budgets of both the CMO Headquarters and the CIMH, without any built-in host country benefit, and thus suggested that the CMO contribution formula should be revisited.

7.8 The **Principal** informed the Council that over the past two years, CIMH had earned up to BDS \$1.9 million from the University of the West Indies and other projects. These funds kept the CIMH functioning when contributions were late or when there were no contributions at all.

7.9 The Chairman of the BoG informed the Council that CIMH had presented a 2010 budget of BDS \$5,768,068.00 to the Board. However, in view of the current global economic crisis, the Board proposed to freeze the 2010 budget of the CIMH to the agreed budget for 2009, which was BDS \$5,086,716.00, and that no new positions be established or filled in the 2010 financial year.

7.10 The **Chairman** of the BoG presented the Council with Revised Estimates of Expenditure of the CIMH for 2010 of **BDS \$5,086,716.00** for its approval.

#### 7.11 THE COUNCIL:

**Accepted** the Draft Summary of Conclusions of the Forty-Sixth Meeting of the Board of Governors of the Caribbean Institute for Meteorology and Hydrology and made amendments and other editorial corrections;

**Approved** the Estimates of Expenditure for 2010 of **BDS \$5,086,716.00** for the CIMH as presented by the Board of Governors;

**Decided** that a statement of arrears for both Organs of the CMO should be sent to Member States with invitations to future sessions of the Caribbean Meteorological Council and associated meetings.

#### 7(b) Principal's Report

7.12 The Principal of the CIMH, **Dr David Farrell**, presented the Council with his Report on the activities of the CIMH for the past year. He informed the Council that three new courses were introduced in the BSc. Degree programme and it was to the advantage of the CIMH, since it receives payment from the UWI for every student enrolled in the BSc programme.

7.13 The Principal updated the Council about a request from the Ministry responsible for Defence and Security in Barbados to relocate the tower intended to house a coastal surveillance radar, to a site closer to the operational area of the Institute. The Principal felt that the health and safety risks are unacceptable to the employees, students and guests who use the library and also to the scientific activities of the Institute. The Council agreed with the views of the Coordinating Director of the CMO and the Principal that the matter should be resolved through dialogue with the relevant Ministry officials and not through an imposed solution.

7.14 The principal **Representative of Barbados** indicated that he would initiate discussions with his colleagues on the matter of the location of the tower on the premises of the CIMH and that "*good sense will prevail*".

#### 7.15 THE COUNCIL:

**Noted** the Principal's Report setting out the activities and issues relating to the CIMH since the Forty-Sixth Meeting of the Board of Governors;

**Agreed** that early consideration should be given to the matter related to the Principal's Contract.

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

8.1 The Meeting considered the Report of the Annual Meeting of Directors of Meteorological Services held on 7 November 2009, which was presented by Mr Glendell De Souza, Science and Technology Officer of the CMO Headquarters. The Report provided the Council with a summary of the deliberations and recommendations of the Directors on a wide range of technical and scientific topics.

8.2 Mr De Souza highlighted two areas in which the Member States should concentrate their energies over the next year. These areas are:

1. **Migration to BUFR:-** Synoptic weather observational data from the Meteorological Services in the WMO Regional Basic Synoptic Network (RBSN), which are Antigua, Barbados, Belize, Cayman Islands, Grenada, Guyana, Jamaica, St. Lucia and Trinidad and Tobago, would be transmitted in the WMO **B**inary **U**niversal **F**orm for the **R**epresentation (BUFR) of meteorological data from November 2010. Data in the BUFR format cannot be read by humans unless decoded; therefore these Meteorological Services should already be giving consideration to the future utility and assignment of members of staff who currently plot synoptic charts.
2. **Quality Management Systems:** - The International Civil Aviation Organization (ICAO) made a recommendation in November 2002 that all meteorological offices providing services to aviation, institute a quality management system which is ISO 9000 certified. That recommendation would be a requirement (standard) in November 2010. All Meteorological Services of Member States of the CMO which provide services to the aviation community (forecast and non-forecast offices) are required to have a QMS in place by the November 2010 deadline. The QMS covers all aspects of aeronautical meteorology from the frequency of the calibration of equipment, qualification of staff, etc. The certification of Meteorological Services has implications to the recurrent costs of providing services for the aviation community nationally. If however, Member States of the CMO chose not to seek certification, there is the possibility of loss of revenue due to the downgrading of airports.

### **8.3 THE COUNCIL:**

**Noted** the implications to the migration to BUFR code form scheduled for November 2010;

**Also Noted** the implication for not implementing quality management systems certification before November 2010;

**Endorsed** the Draft Report of the Meeting of Directors of Meteorological Services held on 29 November 2009.

## **9. CMO WEATHER RADAR PROJECTS**

### **(a) CARIFORUM/EU PROJECT – Closure, Follow-up and Future Activities**

9.1 The Council was briefed on the status of the “*Regional Weather Radar Warning System*” Project, which was administered by the Caribbean Forum of ACP States (CARIFORUM) and implemented by the CMO. The European Union approved 13.2 million Euros for this Project initially, to construct and install four new digital Doppler weather radars in the Caribbean.

9.2 Four powerful, high-precision METEOR 600 S-band Doppler radars, manufactured by the Selex-Gematronik Integrati company of Germany, were installed, tested and put into operation as follows:

- Barbados – **Castle Grant** in the parish of St. Joseph on a 17 metre steel tower;
- Belize – the Meteorological Office at **Philip Goldson International Airport** - on a 12.3 metre refurbished section of the Met. Office complex
- Guyana – **near Cheddi Jagan International Airport** (just to the south of the airport perimeter) – on a 20 metre concrete tower;
- Trinidad and Tobago – **Brasso Venado** on the Central Mountain Range in Trinidad - on a 19 metre reinforced concrete tower.

9.3 The Council noted that the Project Management Unit (PMU) ended its operations in February 2009 since the European Delegation only granted a limited no-cost extension to the PMU, just to allow its radar experts to undertake the Site Acceptance Tests (SAT). Since that time, the CMO, as the Project's Implementing Agency, has carried out the day-to-day functions of the PMU, even though several building-related technical matters still needed resolution.

9.4 Hence 2009 was devoted primarily to the completion of the building works in Guyana, followed by the installation, testing and commissioning of the radar. In addition, and very significantly, the CMO Headquarters had to undertake all the Project closure administrative activities, including final acceptances, final reports, final payments and audit formalities. Even after the official end of the implementation phase of 30 June 2009, considerable activity in these areas continued and would be likely to do so into 2010.

9.5 The Council discussed several post-implementation issues that would be focussed primarily on the operations of the weather radars by the host Governments, the operations of the central spares facility, on-going training, radar calibration, etc. A new Central Spares Depot and Maintenance Support Facility had been established at the CIMH. Each radar site was provided with two sets of radar spares, while a further set was supplied to the CIMH as central spares for the region. Two personnel from the CIMH were trained in radar maintenance at the SELEX facility in Germany to manage the Central Spares Depot and to provide maintenance support to any of the four radar sites if needed. An arrangement was in place between the Barbados Meteorological Service and the CIMH for the CIMH technicians to assist in the routine maintenance of the radar in Barbados.

9.6 The Council took note of the fact that the CMO purchased a three-year warranty for each radar and that the warranty started at the date of the technical site acceptance. During this period, the radar manufacturer will replace all spares and refund (pay) all shipping costs. For the longer term, the Council recalled that, from the onset of this radar Project, it had decided that the Central Spares facility at CIMH would be operated on a **supply and replace basis**, so that if a radar site required any spares from the CIMH, which would normally be as an emergency, the CIMH would supply the component, and the Member State would pay the CIMH for the part so that the CIMH could purchase a replacement for the Depot. In this regard, the Principal informed the Council that the CIMH had commenced the introduction of a **computerized management system** for the inventory of spares and access to and replacement of spares. The Director of the Barbados Meteorological Service proposed that the four radar host countries should contribute the sum of BDS \$10,000.00 per year to a trust fund held by the CIMH for the purchase of spares and associated shipping costs.

9.7 The Council noted the plans to carry out the ***Radar Meteorology Training Programme*** early in 2010 in collaboration with the WMO, using residual funds from the Finland/WMO SIDS Caribbean Project. The Council was also informed that several other planned post-implementation activities, particularly (i) *Radar Emissions Verification Tests* and (ii) *Meteorological Calibration of Weather Radars*, would be undertaken as soon as practical.

## **9.8 THE COUNCIL**

**Urged** the radar host countries to give priority to the completion of all matters that impact on the proper operations and utility of the radars, as agreed to by their respective Governments;

**Agreed** to the establishment of a trust fund to be held by the CIMH for the purchase of spares and associated shipping costs;

**Agreed** to the issuance of statements by the CIMH to show the draw-down of radar spares by each radar host country.

### **(b) CAYMAN ISLANDS WEATHER RADAR PROJECT – COMMENCEMENT**

9.9 The Council was informed that the CMO Headquarters commenced formal discussions in 2009 with the Government of the Cayman Islands to assist it in the implementation of the Cayman Islands Weather Radar Project. The Cayman Islands received grant funding from the European Commission towards this Project, with any shortfall expected to be met by the Government. Once implemented, a new Doppler weather radar would form the centrepiece of the Cayman Islands early warning system and would be integrated into the full CMO network.

9.10 The Grant Agreement between the European Community and the Cayman Islands Airport Authority (CIAA) came into effect on 20 February 2009 with the CIAA undertaking the role as the Project's Implementing Agency. The CMO shall provide all scientific and technical support to the Project under a contract between the CMO and the Cayman Islands Airport Authority, which was under preparation during this session of the Council. The Council noted that in July 2009, a CMO technical team, comprising radar meteorologists, an engineer and a radar site specialist, carried out a detailed site selection survey in Grand Cayman as the first significant activity in the Project.

## **9.11 THE COUNCIL**

**Noted** the start of implementation of the new Radar Project in the Cayman Islands.

## **10. OTHER PROJECT UPDATES AND PROPOSALS**

### **(a) WMO CARIB-HYCOS Project Implementation**

10.1 The Council was provided with an update on the WMO Carib-HYCOS Project. The Carib-HYCOS component of the World Hydrological Cycle Observation System was proposed as two components, one addressing the needs of the Caribbean Island Countries (CIC) and the other, the needs of the mainland countries of the Caribbean Basin. The funding for the mainland component had not yet materialized.

10.2 The Island Component of the Carib-HYCOS Project was specifically aimed at the reinforcement of national capabilities in water resources management and promotion of international cooperation (exchange of data, technology and expertise). As a regional institution, the CMO was supporting Carib-HYCOS, particularly to ensure that the Caribbean Institute for Meteorology and Hydrology (CIMH) played an integral part in this important activity.

10.3 Council noted that the Project implementation started in 2008. The participating States are Barbados, Cuba, Guadeloupe, Haiti, Jamaica, Martinique, Dominican Republic and Trinidad & Tobago. The Project was co-financed by three donors for a total of €1,317,000 as follows:

General Council of Martinique:	€540,000
Regional Council of Martinique:	€250,000
European Funds for Regional Development (FEDER):	€527,000

with estimated in-kind contributions of €1,200,000 from IRD and €400,000 from participating countries.

10.5 During the intercessional period since the 48<sup>th</sup> session of the Council, the PSC applied for additional funds to include Antigua & Barbuda, Dominica and St Lucia. The CMO Headquarters and CIMH assisted those CMO Member States in their applications to participate. A favourable response to the application was received but some complementary administrative formalities were awaited.

10.6 The Council was informed that the achievements in 2009 included:

- (i) Installation of the main server, launching of the Geographical, Hydrological and Environmental Information Systems (intranet) and the Carib-HYCOS Web portal at the PRC;
- (ii) Technical visits to the NHSs and hydrological networks in Barbados, Cuba, Dominican Republic, Guadeloupe, Jamaica, Martinique and Trinidad & Tobago;
- (iii) The final validation of the equipment technical specifications for the NMSs was expected in October with the launch of tenders for the hydrological equipment, IT equipment and various software packages were scheduled for November.

**(b) TURKS & CAICOS ISLANDS METEOROLOGICAL SERVICE DEVELOPMENT PROJECT**

10.7 The Council was informed that the CMO was collaborating with the authorities in the Turks & Caicos Islands, led by the Airports Authority, for the development of a new Meteorological Service for those islands. This would be a phased activity over several years. The *initial* phases of the CMO proposal to the TCI would focus on:

- (a) Human Resources Development;
- (b) Operations and Staffing;
- (c) Meteorological Equipment;
- (d) Telecommunications.

10.8 The Turks & Caicos Islands were fortunate that two of its nationals recently completed university training in meteorology with their own resources. This was considered a significant occurrence that should provide a boost to these development plans. Arrangements were put into place for one to undergo on-the-job training and to work as a meteorologist for a period at the Meteorological Service of The Bahamas, while the other was attached to the Department of Disaster Management and Emergencies in the Turks & Caicos Islands. However, the person who was to be attached to the Bahamas Weather Service did not remain with the programme.

**(c) FUTURE CMO PROJECT PROPOSALS**

10.9 The Council was informed about the following project proposals.

**(i) Lightning Detection System**

10.10 CMO had been trying to establish a ground-based **Lightning Detection System** in the region in partnership with the Meteorological Service of France [Météo-France (MF)] for some time the Council was informed. Technical investigations continued over the last year independently within CMO and in collaboration with MF.

10.11 Two particular systems were under investigation initially; one was owned and operated by one of the world's largest providers of meteorological equipment, while the other was the UK Met Office system. Both were high-end systems with considerable accuracy, but both of which could be improved with extra sensors in the Caribbean.

10.12 There was some reservations about the operating cost of such a system and differs somewhat from its partners in the solution. Most of the collaborators appear to favour one central concentrator for computation and disbursement or dissemination, and one central point of contact and financing for Member States. It was viewed as impractical because it could not undertake such a facility when Member States have difficulty in making contributions to the organs of the CMO. The preferred solution was for a system of regionally-owned and operated sensors with multi-point processing within the region that may be less sophisticated than the other systems, but considerably cheaper to operate. CMO studies to date had not reached the stage of clarity. The investigative process would continue.

**(ii) Continental river runoff observations in Guyana and Belize**

10.13 Avenues would be explored to begin collecting daily hydrological runoff observations data at downstream ends of the rivers in Belize and the large rivers in Guyana. This could be handled in association with GCOS (Global Climate Observing System) activity or under the continental Carib-HYCOS project.

**(iii) Coordination of CMO Automatic Weather Station data collection**

10.14 Many Automatic Weather Stations (AWS) operated by the NMHSs in Member States are not all available in an operational mode, or are not shared through the WMO Global Telecommunication System (GTS). This was partly a telecoms issue. The remote nature of some AWSs may also pose maintenance challenges that need to be addressed. There was a need for proper quality control of AWS data, including the availability of the data to all users & proper archiving for operational and climate use. A project for this matter may not require outside financial assistance but could be coordinated with local funding.

## **(v) Data Rescue**

10.15 Through several projects and programmes over the last decade, attempts were made to rescue old meteorological and climate data. Most of the old data exists in paper form that runs serious risks of damage or even loss. Data rescue efforts were aimed at saving these important data sets by converting them to a digital format for storage and retrieval. Data rescue equipment, software and training were already provided to the NMHSs of Member States. However, data rescue efforts were still far from achieving the aims of the climate community. The aim was to continue the existing programmes to capture old data from both traditional and non-traditional sources. Non-traditional sources would include data collected by non-meteorological national entities, as well as from the many old British and US military bases in the Caribbean and the US Weather Bureau stations in the Caribbean. Data rescue efforts would continue at the national level, but the CMO would also explore linking these efforts to larger international data rescue programmes, such as those of the GCOS within for Central America and the Caribbean. GCOS and other agencies also expressed an interest in working with the CMO in this regard.

## **(vi) Metadata Collection Project**

10.16 The term “**metadata**” means “data about data” of any sort and in any medium. Metadata gives all levels of detail of data collected, of the instruments used, methods of storage, ownership, etc. Metadata exists on most of the conventional weather observing stations at NMHSs in Member States. But there needs to be an assessment to check the completeness of this metadata. In recent years, there have been a large number of Automatic Weather Stations (AWS), hydrological stations, sea level monitoring stations, etc that have been installed in the Caribbean. Metadata on these stations has not been properly documented, if at all. In some cases, stations, or parts thereof, had been moved to nearby locations, without any documentation of the move being recorded.

10.17 In the context of weather, water and climate studies, the metadata on individual sensors was necessary. From a data processing perspective, metadata would be critical to the “globalization” of data exchange. The new *WMO Information System (WIS)*, of which the traditional GTS now forms a core, was based on a multiple-level database system that relies on accurate metadata.

10.18 There were a number of regional and international activities which were being planned or implemented to improve the availability of metadata. The CMO Headquarters planned to contribute to the effort by introducing the methodology to the NMHSs in Member States to generate a complete list of existing regional installations and associated metadata.

## **10.19 THE COUNCIL**

**Noted** the updated information on the WMO Carib-HYCOS Project;

**Also Noted** the information on the Turks & Caicos Islands Meteorological Service Development Project;

**Further Noted** the information on future projects planned by the CMO Headquarters.

## 11. **SPECIAL CMO ISSUES AND WMO ISSUES**

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

- (a) Outcome/Highlights of the 2009 WMO Regional Association IV – North America, Central America and the Caribbean
- (b) New Finland initiative for the Caribbean
- (c) Outcome/Highlights of the 2009 Executive Council of the World Meteorological Organization
- (d) Aeronautical Meteorological Services in the Caribbean –
  - a. Implementation of Quality Management Standards
  - b. ICAO/WMO Staff requirements & Standards
- (e) Outcome/Highlights of the World Climate Conference-3 (WCC-3)
- (f) Relevant Caribbean Community Position for COP-15
- (g) World Meteorological Congress 2011 – Formulation of CMO Issues

11.2 The 2009 session of the WMO Regional Association for North America, Central America and the Caribbean, which took place in the Bahamas from 24 April to 01 May, set out the regional policies and programmes in weather, climate and related sciences, and set up the methodologies to undertake these within the overall global programmes of the WMO.

11.3. In this regard, the Regional Association agreed to focus on the following priority areas over the next four years:

- Capacity building;
- Disaster Risk Reduction;
- Climate change and adaptation;
- Integrated water management;
- Aeronautical meteorology;
- The WMO Integrated Global Observing System (WIGOS);
- Hurricanes.

11.4 The Association formalized its **Management Group**, and established a number of **Task Teams** to address the priority areas. Several personnel from CMO Member States were named to these tasks.

11.5 The Council was briefed on a new initiative in the Caribbean by the Government of Finland that would build on an earlier project that assisted several Meteorological and Hydrometeorological Services in CMO Member States, with various systems and training. As with the earlier activity, this new initiative would be developed by the *Finland Meteorological Institute* (FMI) in partnership with the WMO and the *Association of Caribbean States* (ACS). The CMO was expected to be on the Supervisory Board to assist in developing and guiding the process.

11.6 The Coordinating Director presented the Council with the outcomes and highlights of the 61<sup>st</sup> Session of the Executive Council of the World Meteorological Organization, which took place in Geneva in June 2009. Of particular interest to the Caribbean, the Executive Council made decisions on:

- (a) Strengthening **climate information** deliverables;
- (b) Developing a global network of **Regional Climate Centres** (RCCs);
- (c) **Climate data rescue programmes** in Africa and the Caribbean;
- (d) Improving operational **weather forecasts for civil aviation**
- (e) Strengthening and integrating **observing systems** and the development of the **WMO Information System** (WIS)

11.7 Important matters concerning **Aeronautical Meteorological Services in the Caribbean**, particularly (i) the Implementation of Quality Management Standards and (ii) ICAO/WMO Staff requirements & Standards, were reported to the CMC under Agenda item 8.

11.8 The Council was provided with a briefing by **Mr Fred Sambula**, Director of the National Weather Service of the Cayman Islands, on the outcome and highlights of the **World Climate Conference-3** (WCC-3), which took place in Geneva, Switzerland from 31 August to 4 September 2009. WCC-3 brought together more than 2000 climate scientists, sectoral experts and decision-makers from both developed and developing countries. Many Heads of State and Government, Ministers and Heads of Delegation were present at the High-level Segment of WCC-3. The Caribbean was represented by **Hon. Mr Robert Persaud**, Minister of Agriculture of Guyana. There were 200 speakers and 1500 participants in the Expert Segment, including **Mrs Ann Gordon**, **Mr Fred Sambula** and **Ms Bhaleka Seulall** of the meteorological services of Belize, Cayman Islands and Guyana respectively.

11.9 An Executive Summary of the WCC-3 **Conference Statement** - Expert Segment and the **WCC-3 High-Level Declaration** are provided in **ANNEX V** to this Report.

11.10 The Council was briefed on the outcome of a Ministerial-level meeting in St. Lucia during September 2009 on **Climate Change and Development**, in preparation for the United Nations Conference on Climate Change, to take place in Copenhagen, Denmark (December 2009). The meeting was attended by the Coordinating Director and the Principal of the CIMH. The outcome of the WCC-3 (see above) was presented to this meeting by the Coordinating Director, along with the possible implications for the Caribbean.

11.11 Although two years away, the Council discussed certain aspects of its strategies for the 2011 session of the *World Meteorological Congress*, including support for specific officers. Of relevance to the discussion is the fact that the Coordinating Director would be completing his second four-year term as the Second Vice-president of the World Meteorological Organization. Officers of the WMO are elected by the Congress to serve in their personal capacity for the benefit of the entire Organization.

11.12 The Council unanimously agreed to support the Coordinating Director in seeking higher office at the Congress and urged all Member States and the Secretary-General of CARICOM to actively promote his candidature at the highest diplomatic levels regionally and internationally. The Council urged the Coordinating Director to develop his strategy without delay and begin the process to gain international support immediately.

## **12. ANY OTHER BUSINESS**

12.1 The Coordinating Director informed the Council that there was a practice by the Auditor General's Department of Trinidad and Tobago, of sending the CMO Headquarters audited statement to some Ministries of the Government of Trinidad and Tobago, at the same time submitting the statement to the CMO Headquarters. The Coordinating Director felt that the practice was inappropriate since only one Member State was privy to the statement. The Council was of the opinion that the appropriate practice was for the submission to the CMO Headquarters for onward transmission to all Member States at the same time.

12.2 The Council recalled that at its Forty-seventh session in St. Vincent and the Grenadines, it decided on a two-year experiment of holding the meeting of the Board of Governors of the CIMH before the meeting of the Directors of Meteorological Services, in order to improve efficiency of report preparations to the Council. The Council **decided** that this practice will continue until further notice.

12.3 The Council was informed by the Coordinating Director that he was approached by a representative of the World Bank enquiring about the possibility of Haiti becoming a Member of the CMO. The Council was of the view that the CMO did not have the financial and linguistic capacity to assist Haiti at this time and the Coordinating Director should enquire of the World Bank whether it intended to provide long-term financial support to the CMO to enable the Haiti's membership of the CMO to be meaningful. Nonetheless, the Council suggested that the Organs of the CMO, namely the Headquarters and the CIMH, should continue collaborating with donor agencies and other partners in activities that involve Haiti.

12.4 The Council discussed the format of document presented to it and associated meetings. It proposed that the CMO Headquarters and the CIMH review the format to include an Executive Summary in the final reports of sessions.

## **13 DATE AND VENUE OF CMC50 (2010)**

13.1 The Council recalled that, at its 48<sup>th</sup> session in Guyana, the Delegate from the **Turks and Caicos Islands** informed the Council of its desire to host the Fiftieth Session of the Caribbean Meteorological Council and Related Meetings in 2010. This offer was confirmed early in 2009. However, the Government of the Turks and Caicos Islands subsequently informed the CMO Headquarters that, due to financial constraints at this time, it would put its offer to host on hold.

13.2 The CMO Headquarters also received a confirmed offer from the Government of the Cayman Islands to host the 50<sup>th</sup> session of the Council and related meetings in 2010.

13.3 The Chairman of the Council was of the view that in order to increase the participation of Ministers responsible for meteorology at Council sessions, the Minister of the country offering to host should invite the relevant Ministers directly, in addition to the normal means of notification.

13.3 **THE COUNCIL:**

**Thanked** the Turks and Caicos Islands for considering the hosting of these meetings and hoped that it would be able to host in the future;

**Welcomed** the kind offer by the Government of the Cayman Islands to host the 50<sup>th</sup> session of the Council and related meetings in 2010.

**Expressed** its thanks to the Government of the British Virgin Islands for the warm hospitality extended and the excellent arrangements put in place for the conduct of the business of CMC49.

**Close of Meeting**

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

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**AGENDA**

1. OPENING OF SESSION AND ELECTION OF CHAIRMAN
2. ADOPTION OF AGENDA AND PROCEDURAL MATTERS
3. CMO HEADQUARTERS UNIT MATTERS
  - (a) Coordinating Director's Report
  - (b) Status of Refundable Balances
  - (c) Auditor's Report
4. STATUS OF ACTIONS FROM PREVIOUS SESSION
5. STRENGTHENING THE CMO HEADQUARTERS - IMPLEMENTATION OF INSTITUTIONAL REVIEW RECOMMENDATIONS
6. CMO BUDGETS (Headquarters Unit, CRN and Radar)
  - (a) Budget Estimates for 2010
  - (b) Statement of Contributions and Arrears
  - (c) Revised 2009 Estimates
7. CIMH MATTERS
  - (a) Board of Governors' Report
  - (b) Principal's Report
8. ANNUAL MEETING OF THE DIRECTORS OF METEOROLOGICAL SERVICES
9. CMO WEATHER RADAR PROJECTS
  - (b) CARIFORUM/EU PROJECT – Closure, Follow-up and Future Activities
  - (c) Cayman Islands Radar Project – Commencement

10. OTHER PROJECT UPDATES AND PROPOSALS
    - (a) CARIB-HYCOS Project – Implementation Status
    - (b) Turks & Caicos Islands Meteorological Service Development Project
    - (c) Future CMO Project Proposals
  11. SPECIAL CMO AND WMO ISSUES
    - (h) Outcome/Highlights of the 2009 WMO Regional Association IV – North America, Central America and the Caribbean
    - (i) New Finland initiative for the Caribbean
    - (j) Outcome/Highlights of the 2009 Executive Council of the World Meteorological Organization
    - (k) Aeronautical Meteorological Services in the Caribbean –
      - a. Implementation of Quality Management Standards
      - b. ICAO/WMO Staff requirements & Standards
    - (l) Outcome/Highlights of the World Climate Conference-3 (WCC-3)
    - (m) Relevant Caribbean Community Position for COP-15
    - (n) World Meteorological Congress 2011 – Formulation of CMO Issues
  12. OTHER MATTERS
  13. DATE AND VENUE OF CMC50 (2010)
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**49<sup>TH</sup> MEETING OF THE CARIBBEAN METEOROLOGICAL COUNCIL**  
**BRUMANT FELLOWSHIP HALL, TORTOLA, BRITISH VIRGIN ISLANDS**  
**9<sup>th</sup> – 10<sup>th</sup> NOVEMBER 2009**

**LIST OF DELEGATES**

**ANGUILLA**

Mrs Helen Tonge-Richardson - Senior Air Traffic Control Officer  
Anguilla Air and Sea Port Authority  
Ministry of Infrastructure, Communications, Utilities  
and Housing  
The Valley  
Tel: 264 497 2526/497 2384  
Fax: 264 497 5928  
E-mail: **htungo@yahoo.co.uk**

**ANTIGUA AND BARBUDA**

Mr Keithley Meade - Director (Ag.)  
Antigua and Barbuda Meteorological Services  
Ministry of Tourism, Civil Aviation and Culture  
PO Box 1051  
St. John's  
Tel: 268 462 4606  
Fax: 268 462 4606  
E-mail: **keithleym@yahoo.com**

**BARBADOS**

Hon Haynesley Benn - Minister of Agriculture  
Ministry of Agriculture  
Graeme Hall  
Christ Church  
Tel: 246 434 5010/5011/5012  
Fax: 246 428 7777  
E-mail: **haynesleybenn@gmail.com**

Mr Michael I. King - Permanent Secretary  
Ministry of Agriculture  
Graeme Hall  
Christ Church  
Tel: 246 434 5015/5016  
Fax: 246 428 7777  
E-mail: **mking@agriculture.gov.bb**

**BARBADOS CONT'D**

Mr Chester Layne - Director of Meteorological Services  
Grantley Adams Industrial Park  
Christ Church  
Tel: 246 428 0910  
Fax: 246 428 1676  
E-mail: **dirmet@sunbeach.net**

**BELIZE**

Mr Dennis Gonguez - Director (Ag)  
National Meteorological Service  
Ministry of Natural Resources and the Environment  
Philip Goldson International Airport  
Ladyville  
Tel: 501 225 2012  
Fax: 501 225 2101  
E-mail: **dennis\_gonguez@yahoo.com**

**BRITISH VIRGIN ISLANDS**

Hon Julian Fraser, R.A. - Minister of Communications and Works  
Central Administration Complex  
Road Town  
Tortola  
Tel: 284 468 2108  
Fax: 284 494 5464  
E-mail: **julian@fraser.vg**

Mr Denniston Fraser - Managing Director  
BVI Airports Authority Limited  
P O Box 4416, Road Town  
Tortola  
Tel: 284 852 9000  
Fax: 284 852 9045  
E-mail: **dfraser@bviala.com**

Ms Diana Maduro - Deputy Managing Director  
BVI Airports Authority Limited  
Terrance B Lettsome International Airport  
Beef Island, VG 1120  
Tel: 284 852 9000  
Fax: 284 852 9045  
E-mail: **dmaduro@bviala.com**

**BRITISH VIRGIN ISLANDS CONT'D**

Mr Coy Levons - Director of Operation  
BVI Airports Authority Limited  
P O Box 4416, Road Town  
Tortola  
Tel: 284 852 9030  
Fax: 284 852 9045  
E-mail: **clevons@bviaa.com**

Ms Lydia Rubaine - Senior Air Traffic Control Officer  
BVI Airports Authority Limited  
P.O. Box 4416  
Tortola, VG 1110  
Tel: 284 852 9000  
Fax: 284 852 9045  
E-mail: **lrubaine@bviaa.com**

**CAYMAN ISLANDS**

Mr Fred Sambula - Director, National Weather Service  
Cayman Islands Airports Authority  
Ministry of District Administration, Works and  
Gender Affairs  
Government Administration Building  
71 Elgin Avenue, Grand Cayman, KY 1-9000  
Tel: 345 943 7070/345 5773  
Fax: 345 943 5773  
E-mail: **fred.sambula@caymanairports.com**

**GRENADA**

Mr John H. Peters - Manager of Meteorology  
Grenada Airports Authority  
Ministry of Tourism and Civil Aviation  
Maurice Bishop International Airport  
St. George's  
Tel.: 473 444 4142/473 534 5206  
Fax: 473 444 1574  
E-mail: **jpeters@mbiagrenada.com**  
**jhpet@hotmail.com**

## GUYANA

Ms Bhaleka Seulall - Chief Hydrometeorological Officer  
Hydrometeorological Service  
Ministry of Agriculture  
18 Brickdam, Stabroek  
Georgetown  
Tel: 592 225 4247  
Fax: 592 226 1460  
E-mail: **b.d.seulall@hydromet.gov.gy**

## JAMAICA

Mrs Sylvia McGill - Director  
Meteorological Service  
Office of the Prime Minister  
65 ¾ Half Way Tree Road  
Kingston 10  
Tel: 876 929 3700/960 8990  
Fax: 876 960 8989  
E-mail: **metja@infochan.com**  
**wxservice.dir@cwjamaica.com**

## MONTSERRAT

Mr J. E. Allen Barnett - Airport Manager  
John A Osborne Airport  
Ministry of Communications and Works  
P O Box 344  
Gerald's  
Tel: 664 491 6218  
Fax: 664 491 7688  
E-mail: **barnetta@gov.ms**

Mr Steve W. P. Ryan - Senior Air Traffic Controller  
John A Osborne Airport  
Ministry of Communications and Works  
P O Box 344  
Woodlands  
Tel: 664 491 6218  
Fax: 664 491 7688  
E-mail: **airport@gov.ms**  
**ryans@gov.ms**

**ST LUCIA**

- Mrs Allison A. Jean - Permanent Secretary  
Ministry of Communications, Works, Transport  
and Public Utilities  
Union Office Complex  
Castries  
Tel: 758 468 4303  
Fax: 758 453 2769/450 2181  
E-mail: **aljean@gosl.gov.lc**
- Mr Thomas Auguste - Director  
St Lucia Meteorological Service  
Ministry of Communications, Works, Transport  
and Public Utilities, Union  
Castries  
Tel: 758 450 1210/721 7106  
Fax: 758 453 2769  
E-mail: **tauguste@gosl.gov.lc**

**ST VINCENT AND THE GRENADINES**

- Mrs Corsel Robertson - Director of Airports  
Airports Department  
Ministry of National Security Air and Sea Ports  
Development  
E.T. Joshua Airport  
Arnos Vale  
Tel: 784 458 4011  
Fax: 784 458 4786  
E-mail: **etjoshua@vincysurf.com**
- Mr David Burgin - Meteorological Officer (Ag)  
Airports Department  
Ministry of National Security Air and Sea Ports  
Development  
E.T. Joshua Airport  
Arnos Vale  
Tel: 784 458 4011/458 4477  
Fax: 784 458 4786/458 4477  
E-mail: **svgmet@gmail.com**  
**burgind30@hotmail.com**

**TRINIDAD AND TOBAGO**

Mr Emmanuel Moolchan - Director (Ag)  
 Ministry of Public Utilities  
 Trinidad and Tobago Meteorological  
 Services Division  
 P.O. Box 2141 National Mail Centre  
 Piarco  
 Tel: 868 669 5465/740 7210  
 Fax: 868 669 4009  
 E-mail: **dirmet@tsstt.net.tt**  
**e\_moolchan@hotmail.com**

**INSTITUTIONS/ORGANIZATIONS****CARIBBEAN METEOROLOGICAL ORGANIZATION - HEADQUARTERS**

Mr Tyrone Sutherland - Coordinating Director  
 #27 O'Connor Street, Woodbrook  
 P.O. Box 461, Port of Spain  
 Trinidad and Tobago  
 Tel: 868 622 4711  
 Fax: 868 622 0277  
 E-mail: **TSutherland@cmo.org.tt**

Mr Glendell De Souza - Science and Technology Officer  
 #27 O'Connor Street, Woodbrook  
 P.O. Box 461, Port of Spain  
 Trinidad and Tobago  
 Tel: 868 622 4711  
 Fax: 868 622 0277  
 E-mail: **GDe\_Souza@cmo.org.tt**

Ms Lynn Nimblett - Administrative Officer  
 #27 O'Connor Street, Woodbrook  
 P.O. Box 461, Port of Spain  
 Trinidad and Tobago  
 Tel: 868 622 4711  
 Fax: 868 622 0277  
 E-mail: **LNimblett@cmo.org.tt**

Ms Beverly Patterson-Roberts - Secretary  
 #27 O'Connor Street, Woodbrook  
 P.O. Box 461, Port of Spain  
 Trinidad and Tobago  
 Tel: 868 622 4711  
 Fax: 868 622 0277  
 E-mail: **BPatterson@cmo.org.tt**

**CARIBBEAN INSTITUTE FOR METEOROLOGY AND HYDROLOGY**

- Dr David Farrell, PG - Principal  
Husbands, St. James BB 23006  
Barbados  
Tel: 246 425 1362/3/5  
Fax: 246 424 4733  
E-mail: **dfarrell@cimh.edu.bb**
- Ms Cheryl Sandiford - Senior Administrative Officer  
Husbands, St. James BB 23006  
Barbados  
Tel: 246 425 1362/3/5  
Fax: 246 424 4733  
E-mail: **csandiford@cimh.edu.bb**
- Mrs Sandra Moore - Secretary  
Husbands, St. James BB 23006  
Barbados  
Tel: 246 425 1362/3/5  
Fax: 246 424 4733  
E-mail: **smoore@cimh.edu.bb**

**LOCAL SUPPORT STAFF**

- Ms Drusilla Fahie - Executive Secretary  
BVI Airports Authority Limited  
P O Box 4416, Road Town, Tortola,  
BVI, VG 1110  
Tel: 284 852 9000  
Fax: 284 852 9045  
E-mail: **dfahie@bviaa.com**
- Mr Ricky Smith - Network Assistant  
BVI Airports Authority Limited  
Terrance B Lettsome International Airport  
Beef Island, BVI  
Tel: 284 441 1480  
Fax: 284 852 9045  
E-mail: **rsmith@bviaa.com**

- Mrs Gloria Mactavious - Minister's Private Secretary  
Central Administration Complex  
Road Town, Tortola, VG 1110  
British Virgin Islands  
Tel: 284 468 2108  
Fax: 284 494 5464  
E-mail: **gmactavious@hotmail.com**  
**glmactavious@gov.vg**
- Mr Curtis Lettsome - Driver  
BVI Airports Authority Limited  
P.O. Box 2806, East End  
Tortola, VG 1120, BVI  
Tel: 284 443 0183  
E-mail: **jufabulas@hotmail.com**
- Mr Rohan F Wynter - Custodian  
BVI Airports Authority Limited  
P O Box 4416, Road Town, Tortola, BVI  
Tel: 284 852 9000  
Fax: 284 852 9045  
E-mail: **iceboywynter@yahoo.com**
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**Tip on reading/ understanding the Surplus/ Accumulated Surplus on the financial statements**

The ***Income and Expenditure Statement/Income Statement*** is prepared under the accrual basis of accounting and **NOT** the Cash Basis. This means that the revenues are recorded as they are due, but they may not have been collected. Similarly, the expenses reported on the Income Statement might not have been paid.

Therefore, a ***Surplus/Accumulated Surplus*** on the Income Statement does not represent actual cash that the Organization has at that point in time. A Surplus/Accumulated Surplus on the income statement includes non-cash items such as depreciation and revaluation of non-current assets, as well as the computed surplus for the year that would have been achieved if all revenues were received and all expenses were paid. It also includes brought-forward balances of similar surpluses since the inception of the Organization.

Therefore, the ***Cash Flow Statement/Statement of Cash Flows*** is distinct from the ***Balance Sheet and the Income Statement*** as it does not include the amount of future incoming and outgoing cash that have been recorded. This statement identifies the actual cash that is flowing in and out of the Organization. The item Cash and Cash Equivalents at year-end on the Statement of Cash Flows and Cash in Hand and at Bank on the Balance Sheet represents **actual cash** that the Organization has at year-end for future operations. The ***Statement of Cash Flows*** gives a clearer picture of how well an organization is functioning and its ability to repay debt or fund projects.

Therefore, a Surplus/Accumulated Surplus as at year-end on the Income Statement is not the same as actual cash which the Organization has on hand for future operations.

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Prepared in consultation with and approved by the Auditor-General's Department

## REGIONAL CONTRIBUTION TO CMO BUDGETS - 2010 – OPTION 1

UNITS	COUNTRY	HQ	CRN					TOTAL CRN	RADAR	TOTAL HQ/CRN/ RADAR	CIMH
			B'DOS	BELIZE	CAY IS.	J'CA	T & T				
		TT\$	TT\$	TT\$	TT\$	TT\$	TT\$	TT\$	TT\$	TT\$	BDS\$
3	ANGUILLA	13,260	369	227	95	717	828	2,236	228	15,724	20,330
25	ANTIGUA	110,500	3,076	1,889	791	5,976	6,899	18,631	1,897	131,028	169,414
70	BARBADOS	309,399	30,709	5,290	2,214	16,732	19,316	74,261	5,312	388,972	1,542,569
43	BELIZE	190,059	5,291	25,347	1,360	10,279	11,866	54,143	3,263	247,465	291,393
3	BR. VIRGIN IS.	13,260	369	227	95	717	828	2,236	228	15,724	20,330
18	CAYMAN IS	79,560	2,215	1,361	22,666	4,303	4,967	35,512	1,366	116,438	121,979
10	DOMINICA	44,200	1,230	756	317	2,391	2,760	7,454	759	52,413	67,766
25	GRENADA	110,500	3,076	1,889	791	5,976	6,899	18,631	1,897	131,028	169,414
52	GUYANA	229,839	6,398	3,930	1,645	12,430	14,349	38,752	3,946	272,537	352,382
136	JAMAICA	601,118	16,733	10,278	4,302	54,604	37,528	123,445	10,320	734,883	921,613
3	MONTserrat	13,260	369	227	95	717	828	2,236	228	15,724	20,330
10	ST. KITTS/NEVIS	44,200	1,230	756	317	2,391	2,760	7,454	759	52,413	67,766
25	ST. LUCIA	110,500	3,076	1,889	791	5,976	6,899	18,631	1,897	131,028	169,414
10	ST. VINCENT	44,200	1,230	756	317	2,391	2,760	7,454	759	52,413	67,766
157	T'DAD & TOBAGO	1,043,983	19,316	11,865	4,966	37,528	65,418	139,093	11,913	1,194,989	1,063,920
3	TURKS & CAICOS	13,260	369	227	95	717	828	2,236	228	15,724	20,330
<b>593</b>	<b>TOTAL</b>	<b>2,971,098</b>	<b>95,056</b>	<b>66,914</b>	<b>40,857</b>	<b>163,845</b>	<b>185,733</b>	<b>552,405</b>	<b>45,000</b>	<b>3,568,503</b>	<b>5,086,716</b>

**WORLD CLIMATE CONFERENCE-3  
Geneva, 31 August – 4 September 2009**

**CONFERENCE STATEMENT  
Summary of the Expert Segment**

In the 21<sup>st</sup> Century, the peoples of the world are facing multi-faceted challenges of climate variability and climate change, which requires wise and well-informed decision-making at every level from households, communities, countries and regions, to international fora, including the UN Framework Convention on Climate Change. Those decisions will require, directly or indirectly, access to the best possible climate science and information and effective application of this information through climate services.

The first two World Climate Conferences in 1979 and 1990 laid the foundation for building research and observational activities to understand the nature of the climate challenges and to provide the scientific bases for developing comprehensive and sound climate services that are now being sought by all countries and in virtually every sector of society. The World Meteorological Organization (WMO) and its partners convened the World Climate Conference-3 (WCC-3) to provide nations with the opportunity to jointly consider an appropriate global framework for climate services over the coming decades that would help ensure that every country and every climate-sensitive sector of society is well equipped to access and apply the growing array of climate prediction and information services made possible by recent and emerging developments in international climate science and technology.

The purpose of the Expert Segment of WCC-3 was to engage a wide cross-section of climate scientists, expert providers of climate information and the users of climate information and services in a wide-ranging discussion on the essential elements of a new Global Framework for Climate Services for consideration by the High-level Segment of the Conference.

The 200 speakers and 1500 participants in the Expert Segment:

- *reviewed* the various elements of the shared challenge facing the climate service provider and user communities;
- *considered* the needs and capabilities for applying climate information in key climate-sensitive sectors, as well as its social economic benefits;
- *examined* the scientific basis for climate information and prediction services;
- *were advised* on the needs and perspectives of a number of scientific, environmental and socioeconomic groups and organisations;
- *were informed* of the experience of a wide range of countries and climate-sensitive sectors in the implementation of climate services;
- *concluded*:
  - that present capabilities to provide effective climate services fall far short of meeting present, and future needs and benefits, particularly in developing countries;
  - that the most urgent need is for much closer partnerships between the providers and users of climate services;
  - that great scientific progress has been made especially by the World Climate Programme and its associated activities over the past 30 years, which provides already a firm basis for the delivery of a wide range of climate services; and

- that major new and strengthened research efforts are required to increase the time-range and skill of climate prediction through new research and modelling initiatives; and to improve the observational basis for climate prediction and services, and the availability and quality control of climate data;
- *called for major strengthening* of the essential elements of a global framework for climate services:
  - The Global Climate Observing System and all its components and associated activities; and provision of free and unrestricted exchange and access to climate data;
  - The World Climate Research Programme, underpinned by adequate computing resources and increased interaction with other global climate relevant research initiatives.
  - Climate services information systems taking advantage of enhanced existing national and international climate service arrangements in the delivery of products, including sector-oriented information to support adaptation activities;
  - Climate user interface mechanisms focussed on building linkages and integrating information, at all levels, between the providers and users of climate services; and
  - Efficient and enduring capacity building through education, training, and strengthened outreach and communication.
- *supported the development* of the proposed Global Framework for Climate Services.

The WCC-3 Sponsoring Agencies agreed, therefore, that the essential findings of the Expert Segment, as summarised in this Statement, should be transmitted to the High-level Segment of the Conference for the information of delegates and other Conference participants and referred to their individual and joint executive and co-ordination bodies for follow-up action in particular in the context of the UN Chief Executives' Board (CEB) initiative on the UN System Delivering as One on Climate Knowledge.

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**WCC-3  
HIGH-LEVEL DECLARATION**

**DO 1** We, Heads of State and Government, Ministers and Heads of Delegation present at the High-level Segment of the World Climate Conference-3 (WCC-3) in Geneva, noting the findings of the Expert Segment of the Conference;

**OP 1** *Decide* to establish a Global Framework for Climate Services (hereafter referred to as “the Framework”) to strengthen production, availability, delivery and application of science-based climate prediction and services;

**OP 2** *Request* the Secretary-General of WMO to convene within four months of the adoption of the Declaration an intergovernmental meeting of member states of the WMO to approve the terms of reference and to endorse the composition of a task force of high-level, independent advisors to be appointed by the Secretary-General of the WMO with due consideration to expertise, geographical and gender balance;

**OP 3** *Decide* that the task force will, after wide consultation with governments, partner organizations and relevant stakeholders, prepare a report, including recommendations on proposed elements of the Framework, to the Secretary-General of WMO within 12 months of the task force being set up. The report should contain findings and proposed next steps for developing and implementing a Framework. In the development of their report, the taskforce will take into account the concepts outlined in the annexed Brief Note;

**OP 4** *Decide* further that the report of the task force shall be circulated by the Secretary-General of WMO to Member States of the WMO for consideration at the next WMO Congress in 2011, with a view to the adoption of a Framework and a plan for its implementation; and

**OP 5** *Invite* the Secretary-General of WMO to provide the report to relevant organizations, including the UN Secretary-General.

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