



World Meteorological Organization

COMMISSION FOR CLIMATOLOGY

**Expert Meeting on WMO Climate Data
Management System Strategy**

Geneva, Switzerland, 12-14.XII.2018

**EM-WCDMSS/Doc
N(4.1)**

Submitted by:
Steve Foreman

14.XII.2018

**DRAFT RESOLUTION FOR CG-18 DECIDING TO SET UP REFERENCE
CDMS TOOL SET**

This document will become Doc 6.1(1) for the 2019 workshop.

REVIEW COMMENTS

Version / No	Reviewer	Issue	Notes	Response
0.1/1	ET-DRM	A project officer will be needed to coordinate the management of the open source project.		

DISCLAIMER

Regulation 43

Recommendations of working groups shall have no status within the Organization until they have been approved by the responsible constituent body. In the case of joint working groups the recommendations must be concurred with by the presidents of the constituent bodies concerned before being submitted to the designated constituent body.

Regulation 44

In the case of a recommendation made by a working group between sessions of the responsible constituent body, either in a session of a working group or by correspondence, the president of the body may, as an exceptional measure, approve the recommendation on behalf of the constituent body when the matter is, in his opinion, urgent, and does not appear to imply new obligations for Members. He may then submit this recommendation for adoption by the Executive Council or to the President of the Organization for action in accordance with Regulation 9(5).

© World Meteorological Organization, 2018

The right of publication in print, electronic and any other form and in any language is reserved by WMO. Short extracts from WMO publications may be reproduced without authorization, provided that the complete source is clearly indicated. Editorial correspondence and requests to publish, reproduce or translate this publication in part or in whole should be addressed to:

Chairperson, Publications Board
World Meteorological Organization (WMO)
7 bis, avenue de la Paix
P.O. Box No. 2300
CH-1211 Geneva 2, Switzerland

Tel.: +41 (0)22 730 84 03
Fax: +41 (0)22 730 80 40
E-mail: Publications@wmo.int

NOTE:

The designations employed in WMO publications and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of WMO concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or products does not imply that they are endorsed or recommended by WMO in preference to others of a similar nature which are not mentioned or advertised.

This document (or report) is not an official publication of WMO and has not been subjected to its standard editorial procedures. The views expressed herein do not necessarily reflect those of WMO or its Members.

DRAFT RESOLUTION FOR CG-18 DECIDING TO SET UP REFERENCE CDMS TOOL SET

Changes in this Annex are relative to Recommendation 2 (EC-70) *Climate data modernization*.

DRAFT RESOLUTION XX/1 (CG-18) Manual on High-quality Global Data Management Framework for Climate

THE CONGRESS,

Recalling:

- (1) Resolution 60 (Cg-17) – WMO Policy for the International Exchange of Climate Data and Products to Support the Implementation of the Global Framework for Climate Services,
- (2) Resolution 34 (Cg-17) – Definition of Standards for Climate Data Management Systems and their reference in the WMO Information System,
- (3) Decision 15 (EC-69) – Strengthening Regional and Global Scale Climate Services Information System Operations,
- (4) Resolution 4 (CCI-17) – Climate Data Modernization,
- (5) Recommendation 2 (EC-70) – Climate data modernization,

Mindful of the increased emphasis given by the Members to climate data including its quality and management as expressed at the Commission for Climatology since its 15th session when CCI re-emphasized the critical and necessary collaboration of all Members to ensure high quality, timely and accessible climate data from all possible sources and recommended the development of a High Quality- Global Data Management Framework for Climate (HQ-GDMFC),

Recognizing:

- (1) that the definitions of standards for climate data management should form an important building block of a long-term modernization process for climate data and related management practices and systems,
- (2) the importance of capacity development needs and provision of guidance to enable Members to fulfil their role in managing and exchanging the climate data that are required for the implementation of climate services,

Recognizing further the growing need in providing standards and advising on recommended practices for managing climate data from all available sources, including in-situ, remote sensing, marine, hydrology and atmospheric data and ensuring its quality standards to support the development on climate knowledge and informed policy making at global, regional and national levels,

Noting the progress made by CCI in guiding Members on climate data including on *Climate Data Management Systems Specifications* (WMO-No. 1131), the Strategy concept for CDMSs and the CCI ongoing work on High Quality Global Data Management Framework for Climate (HQ-GDMFC),

Welcoming Resolution 4 (CCI-17) on Climate Data Modernization, agreeing that a reference Manual on HQ-GDMFC should be finalized,

Convinced of the importance of such a manual for guiding Members on standards and recommended practices with regards to managing climate data, including on terminology, definitions, dataset maturity assessment, data management operations, discovery and exchange, and that these aspects should be described appropriately in the WMO technical regulations,

Appreciating CCI efforts and its collaboration with other commissions and programmes for finalizing the draft reference manual on HQ-GDMFC,

Approves the draft reference manual on *High Quality Global Data Management Framework for Climate (HQ-GDMFC)* as provided in the annex to this Resolution for inclusion to the WMO technical regulations;

Emphasizes the importance of making available the data lineage and traceability of climate products, including the data and the full methodological workings used in their creation, including the computer codes;

Endorses the creation of a reference CDMS tool set developed using open source principles and the approach to management proposed by the Open WMO Workshop on Interoperable Tools to Manage Climate-relevant Data;

Requests the Secretary-General:

- (1) to arrange for the publication of the reference manual on HQ-GDMFC after ensuring compliance with WMO editing standards and practices and inform Members on its formal release;
- (2) To establish a [special account|trust fund] (Financial Regulations, Regulations 9.7 and 9.8 and Rule 109.3) with the Terms of Reference in the Annex to the present resolution to support development, maintenance and implementation of the reference CDMS tool set;
- (3) To facilitate cooperation between WMO constituent bodies and the project developing the reference CDMS tool set;

[Note: Standing instructions state "5.6.33 At the request of either Congress or the Executive Council, the Secretary General establishes and administers funds under the special accounts, either to implement a specific long-term programme or project, the duration of which exceeds a specific financial period, or to administer a grant or a donation." As development and maintenance of the reference CDMS tool set will extend over more than one financial period, a special account may be more appropriate than a trust fund.]

Authorizes the Secretary-General to amend the terms of reference for the [special account|trust fund] to meet the evolving needs of the reference CDMS tool set activities;

Requests the Commission for Observation, Infrastructure and Information Systems to:

- (1) oversee the update of the reference manual on HQ-GDMFC;

- (2) refer to the standards included in the reference manual on HQ-GDMFC in other relevant technical regulations such as WIGOS, WIS and GDPFS for ensuring consistency in the terminology, concepts and definitions of climate data and their management;
- (3) to participate in the development of the reference CDMS tool set;
- (4) refer to the standards included in the reference manual on HQ-GDMFC in other relevant technical regulations such as WIGOS, WIS and GDPFS for ensuring consistency in the terminology, concepts and definitions of climate data and their management.

Encourages Members that do not operate a CDMS based on an electronic database to implement such a system as a matter of urgency;

Urges Members to contribute to the development, maintenance and implementation of the reference CDMS tool set and to consider providing a project officer to coordinate the development;

Requests members of the Association of Hydro-Meteorological Equipment Industry to consider contributing to the development and maintenance of the reference CDMS tool set.

**ANNEX TO DRAFT RESOLUTION XX.XX(XX) (CG-18)
MANUAL ON HIGH-QUALITY GLOBAL DATA MANAGEMENT FRAMEWORK FOR
CLIMATE**

**TERMS OF REFERENCE FOR THE
REFERENCE CLIMATE DATA MANAGEMENT SYSTEM (CDMS) TOOL SET [SPECIAL
ACCOUNT|TRUST FUND]**

With reference to the World Meteorological Organization (WMO) Standing Instructions Chapter 5, Sections 5.6.6 and 5.6.7 on procedures on the establishment of Trust Funds, and in accordance with the WMO Financial Regulations 9.7 and 9.8 and Financial Rules 109.3, whereby the Secretary-General may establish [special accounts|Trust Funds] in the financial record of WMO, these Terms of Reference hereby establish the [special account|Trust Fund] entitled "**Reference Climate Data Management (CDMS) tool set**".

1. This [special account|trust fund] is financed by funds made available by Members or other entities;
2. The [special account|trust fund] shall be managed in accordance with the WMO Financial Regulations, Rules, Standing Instructions and established procedures;
3. The reference CDMS tool set has to be maintained and developed until such time as it is no longer endorsed by WMO for use by Members.

Purpose of the [special account|trust fund]

4. This [special account|trust fund] will be used to support development, maintenance and implementation of the reference CDMS tool set by supplementing the contributions in kind made from other sources to the open source project developing the tool set, with particular, but not exclusive, emphasis on making sure that functionality is available to support compliance by Members with WMO technical regulations.

Administration of the Trust Fund

5. The Climate and Water Department (CLW) is the designated implementing office with the following designations: (i) D/CLW [special account|Trust Fund] Manager, (ii) D/CLW Authorizing Officer, (iii) C/BO Certifying Officer, and (iv) C/FIN as Approving Officer. The Certifying Officer shall draw the attention of D/ADM to any proposed commitments or expenditures which are inconsistent with existing financial or staff provisions.
6. The Certifying Officer shall ensure that the expenditure from the [special account|Trust Fund] is in compliance with the relevant WMO financial provisions.
7. This [special account|Trust Fund] will be utilized for the implementation of the above mentioned activities carried out managed through the open source development project for the reference CDMS tool set.
8. There are no set contributions to the [special account|trust fund].

Risk assessment of the trust fund

9. The [special account|trust fund] will only make agreements to fund activities close to the time of those activities. This limits the exposure of the [special account|trust fund] to unexpected costs or shortfalls in contributions. The nature of an open source project is that should the unlikely event happen that an activity funded from the [special account|trust fund] have to be stopped because of a lack of funds, the intermediate products from that activity will be available for others to complete within the open source project. The financial risk to the [special account|trust fund] is therefore low.
10. The major legal risk to WMO from the [special account|trust fund] is that an organization may claim royalties for computer code included in the reference CDMS tool set that is claimed to be subject to software patents. This risk is planned to be managed by the software being owned by an entity that is registered in a jurisdiction that does not recognize software patents, and by an agreement between every individual contributing to the project.
11. Encryption technology has to be built into the reference CDMS tool set. Although only open source implementations of that technology would be used in the tool set, encryption technologies have been the subject of sanctions. There is a low risk that by endorsing the reference CDMS tool set WMO may be perceived as circumventing sanctions in the event that security technology is included in future sanction arrangements.
12. The Secretary-General of the WMO shall administer the Trust Fund in accordance with the WMO Financial Regulations, Standing Instructions and established procedures, supplemented by the provision of the present rules.
12. The accounting of the expenditures of the Trust Fund shall be as provided for in paragraph 9. Above, as well as for any other directly identifiable charges related to the administration of the Trust Fund and programme support cost charges.

Procedures for the utilization of the [special account|Trust Fund]

13. The utilization of the [special account|trust fund] shall be based upon the work plans of the reference CDMS tool set project and representatives of the technical commission responsible for coordinating with the project.
14. The Secretary-General of WMO will not enter into any financial commitments unless the funds to support this are already held in the [special account|trust fund].

Legal responsibilities

16. Under no circumstances will the [special account|Trust Fund] be made liable to pay and/or reimburse any taxes on emoluments or honorarium, or any customs, import duties, and

value added taxes of similar charges. If applicable, these will be payable by the beneficiaries of the support provided.

Review of these Terms of Reference

17. The Secretary-General of WMO may review these Terms of Reference in the light of experience gained and make any changes as appropriate.

Closure of [special account|trust fund]

18. The [special account|Trust Fund] may be terminated under the terms of the special account|Trust Fund] by D/ADM after consulting with the implementing office, and, if appropriate, with the donors. Any balances remaining at the time a [special account|Trust Fund] is closed will be disposed of in a manner consistent with the purposes of the [special account|Trust Fund] and with the Financial Regulations and Rules of WMO.