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| WORLD METEOROLOGICAL ORGANIZATION  COMMISSION FOR BASIC SYSTEMS  -----------------------------  FIRST MEETING OF  INTER-PROGRAMME EXPERT TEAM ON CODES MAINTENANCE  GENEVA, SWITZERLAND, 24 - 28 JULY 2017 |  | IPET-CM-I / Doc. 10.1  (14. 6. 2017)  -------------------------  ITEM 10.1  ENGLISH ONLY |

IPET-CM AND TASK TEAMS

**IPET-CM and establishment of task teams**

*Submitted by* *the Secretariat*

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**Summary and Purpose of Document**

This document is to present the terms of reference of IPET-CM and to propose establishment of task teams under IPET-CM.

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**ACTION PROPOSED**

The meeting will note the terms of reference of IPET-CM adopted by the 16th session of the Commission for Basic Systems (CBS) and consider establishment of task teams.

**ANNEXES:**

1. Structure of OPAG-ISS and ToR of IPET-CM

2. Possible task teams under IPET-CM and their ToR

**DISCUSSIONS**

1. The sixteenth session of the Commission for Basic Systems (CBS-16) took place in Guangzhou, China, 23–29 November 2016.

2. CBS-16 re-established four Open Programme Area Groups (OPAGs), i.e. OPAG on Integrated Observing Systems (IOS), OPAG on Information Systems and Services (ISS), OPAG on Data Processing and Forecasting Systems (DPFS) and OPAG on Public Weather Services Delivery (PWSD).

3. Inter-Programme Expert Team on Codes Maintenance (IPET-CM) , which terms of reference are as in the Annex I along with the structure of OPAG-ISS, was established under OPAG-ISS to take over the former Inter-Programme Expert Team on Data Representation Maintenance and Monitoring (IPET-DRMM).

4. The meeting will note the TOR and consider establishment of task teams under IPET-CM along with their tasks.

ANNEX I

ICT-ISS

ET-WISC

ET-CAC

IPET-CM

IPET-DD

ET-CTS

TT-IM

TT-eWIS

ICTT-WIS

### Inter-Programme Expert Team on Codes Maintenance (IPET-CM)

(a) Review and maintain the Table-Driven Code Forms by defining descriptors, common sequences, data templates and the regulations supporting these, including data representation of regional practices, so they meet the requirements of all Members, WMO Programmes and other concerned international organizations, such as ICAO;

(b) Raise awareness of Members of the opportunities and risks associated with new technologies;

(c) Review and update guidance to Members and technical commissions on data representation, including national practices, and invite, coordinate and assist Members to validate modified or new data representations;

(d) Review, develop and update the Manual on Codes (WMO-No. 306), the code tables in the Manual on WIGOS (WMO-No. 1160) and associated reference and guidance material as required, and publish these in suitable electronic formats for human and automated use including codes.wmo.int;

(e) Review and develop procedures and guidance to enable the interoperability of metadata and data between WMO standards and formats used within other communities, such as NetCDF, using the WMO Logical Data Model as a tool to achieve this;

(f) Monitor conformance of data exchanged within the WIS and metadata records published to the WIS DAR catalogue with WMO data representation standards for utility and conformance with the guidance and WMO Core Metadata Profile, and develop action plans, including capacity-building, to address issues identified by monitoring;

(g) Review and update the procedures used to maintain WMO data representations, taking into account opportunities presented by the WMO Logical Data Model;

(h) Monitor progress towards, and coordinate actions to implement, migration to Table-driven Codes Forms;

(i) Identify implementation issues requiring the urgent consideration of the OPAG on ISS;

(j) Review and maintain the data designators in abbreviated headings in the Manual on the GTS (WMO-No. 386);

(k) Review and maintain the Graphical Representation of Data, Analyses and Forecasts in the attachment to Manual on Codes in cooperation with OPAG-DPFS;

(l) Assist the WIGOS Data Quality Monitoring System (WDQMS) in understanding and dealing with erroneous BUFR messages as and when they are identified by WDQMS;

(m) Contribute to the maintenance of WIS competencies related to use of codes and associated training and learning guides and facilitate training.

ANNEX II

IPET-CM

TT-GRIB

TT-BUFR

TT-DSM

TT-AvCI

### Task Team on GRIB (TT-GRIB)

(a) Further develop the GRIB edition 3, which has been adopted by EC-69 for experimental use, improving issues identified during validation exercises and incorporating additional requirements - in a way that is compatible with the WMO Logical Data Model.

(b) Implementing machine readable versions of the GRIB tables that allow automatic updating of applications based on GRIB.

(c) Development of specifications that are necessary to allow standard utilities to manipulate GRIB files to be created and maintained.

### Task Team on BUFR (TT-BUFR)

(a) Identify issues that cannot be addressed by the current editions of BUFR and develop the requirements for the next edition of BUFR.

(b) Develop the next edition of BUFR to include the definition of the BUFR format for representation, design and content of BUFR tables, the “grammar” and “syntax” used when representing data in BUFR, and defining tests that validate the correct operation of tools to support the new BUFR edition - in a way that is compatible with the WMO Logical Data Model.

(c) Implementing machine readable versions of the BUFR tables that allow automatic updating of applications based on BUFR.

(d) Development of the specifications that are necessary to allow standard utilities to manipulate BUFR files to be created and maintained.

### Task Team on Data Standards Monitoring (TT-DSM)

(a) Assist the WIGOS Data Quality Monitoring System (WDQMS) in understanding and dealing with erroneous BUFR messages as and when they are identified by WDQMS.

(b) Develop mechanisms to monitor the quality of data representation used within the WIS.

(c) Analyse the data produced by monitoring the quality of data representation within the WIS and take appropriate actions to remedy systematic problems that are identified by the analysis.

(d) Report annually to ICT-ISS on the quality of data representations used within WIS.

### Task Team on Aviation Coding Issues (TT-AvCI)

(a) Develop amendments to the Manual on Codes specific to aviation, including Traditional Alphanumeric Codes (TAC) and Table-Driven Code Forms (TDCF) in collaboration with the International Civil Aviation Organization (ICAO).

(b) Contribute to the development of WMO Logical Data Model (LDM) by TT-AvXML.

(c) Pursue the most efficient approach to synchronized implementation of amendments to the Manual on Codes and Amendment to ICAO Annex 3 (WMO Technical Regulations, Volume II (WMO-No. 49).

(d) Act as the primary body on issues specific to aviation within IPET-CM.