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| WORLD METEOROLOGICAL ORGANIZATIONCOMMISSION FOR BASIC SYSTEMS-----------------------------FOURTH MEETING OF INTER-PROGRAMME EXPERT TEAM ONDATA REPRESENTATION MAINTENANCE AND MONITORINGGENEVA, SWITZERLAND, 30 MAY - 3 JUNE 2016 |  | IPET-DRMM-IV / Doc. 4.1(12. 5. 2016)-------------------------ITEM 4.1ENGLISH ONLY |

SUMMARY AND CONCLUSION OF PROPOSALS

Summary on amendments after IPET-DRMM-III

*Submitted by the Secretariat*

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**Summary and Purpose of Document**

This document records implementation of amendments to the Manual on Codes (WMO-No. 306) after the previous meeting of IPET-DRMM, and presents status of the proposals under validation to be updated.

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**ACTION PROPOSED**

The meeting is invited to review and update the status of proposals and, if needed, to discuss further actions for implementation of these proposals.

**REFERENCES:**

- Abridged final report with resolutions and recommendations, CBS-Ext.(2014) (Asunción, 8-12 September 2014)

- Report of the second meeting of IPET-DRMM (College Park, USA, 28 April-2 May 2014)

- Report of the first meeting of IPET-DRMM (Tokyo, Japan, 1-5 July 2013)

- Report of the fourth meeting of IPET-DRC (Exeter, UK, 21-25 May 2012)

- Report of the third meeting of IPET-DRC (Melbourne, Australia, 20-23 September 2011)

**ANNEXES:**

I. Implementation of amendments during the intersessional period

II. Status of proposals

**DISCUSSIONS**

1. In accordance with the previous *Procedures for Amending the Manual on Codes*, amendments to the Manual on Codes have come into force during the intersessional period of IPET-DRMM without going through sessions of the Commission for Basic Systems (CBS) and the Executive Council (EC).

2. Similarly, in accordance with the new *Procedures for Maintaining Manuals and Guides Managed by the CBS* (Rec.15(CBS-Ext.(2014)/Res.21(Cg-17); effective from 1 Jan. 2016), the amendments by the fast-track procedure and the procedure for adoption between CBS sessions were approved by WMO Members (focal points or PRs). The fast-track amendments have been implemented on 4 May.

3. This document is to place these amendments on record, which details are not shown anymore in the Abridged final report with resolutions and recommendations of CBS sessions. After the previous meeting of IPET-DRMM, the amendments listed in the Annex I have been adopted or implemented.

4. Proposals on amendments to the Manual on Codes, which have been approved for validation, are listed in the Annex II along with those waiting for implementation or implemented after the previous meeting of IPET-DRMM.

5. The meeting will review and update the status of these proposals under validation, and make arrangements, if needed, to properly validate them with centres concerned.

6. Proposals in the Annex II, which have been significantly modified through validation process, should be discussed separately under a new specific agenda item.

**ANNEX I**

Implementation of amendments during the intersessional period

1. [Rec. 6 and 7 (CBS Ext. (2014))](https://www.wmo.int/pages/prog/www/WMOCodes/Amendments/2015/CBS_Ext2014/2014_CBS_XV%20Ext_Rec-6-7.pdf) (4 November 2015)

2. [Pre-operational](http://www.wmo.int/pages/prog/www/WMOCodes/Amendments/2015/preOperational/PreOperational_2015-2.docx) (27 August 2015)

3. [Fast-track 2015-2](https://www.wmo.int/pages/prog/www/WMOCodes/Amendments/2015/fastTrack/FT2015-2_en.pdf) (11 November 2015)

4. [Fast-track 2016-1](https://www.wmo.int/pages/prog/www/WMOCodes/Amendments/2016/fastTrack/FT2016-1_en.pdf) (4 May 2016)

5. [*Adoption between CBS sessions 2016*](https://www.wmo.int/pages/prog/www/WMOCodes/Amendments/2016/betweenCBS/PR-6892-OBS-WIS-DRMM-DRC_en.pdf) *(16 November 2016)*

Note: English documents are available from the links. Some of them are also available in other languages, replacing "en" with "fr", "ru", "es" or "ar" (Item 5), or with "fr", "ru" and "es" (Items 3 and 4) in the links.

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| **STATUS OF PROPOSALS****ANNEX II**1. The following tables are to show the proposals under validation for facilitating validation exercise and to note those implemented or adopted after the previous meeting of IPET-DRMM.2. Proposals at validation stage have no status of the Manual on Codes (WMO-No. 306) and MAY NOT be applied in operational data and products.3. It should be noted proposals at validation stage may be modified during validation exercise.  It is recommended to update the proposals whenever modified.Information as of: 4 May 2016**FM 92 GRIB**

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| --- | --- | --- | --- | --- |
| ID | Approval for Validation | Proposals | Status | Remarks |
| 2016-01 | PFC2015-2 | [GRIB2 parameters for NCEP forecast products](#P2015_2_1) | FT2016-1 |  |
| 2016-02 | PFC2015-2 | [GRIB2 parameters and level type for the uncertainties in ensembles of regional reanalyses project](#P2015_2_2) | FT2016-1 |  |
| 2016-03 | PFC2015-2 | [GRIB2 parameters for new forecast and post-processing products](#P2015_2_3) | FT2016-1 |  |
|  |  |  |  |  |
| 2015-2.1.1 | DRMM-III | [Complete encoding of information required for georeferencing grid points in GRIB](#A2015_2_1_1) | ABC2016 |  |
| 2015-2.1.2 | DRMM-III | [New GRIB2 Regulations and notes to make it clear that forecast times may be negative](#A2015_2_1_2) | Val |  |
| 2015-2.2.1/2.2.2 | DRMM-III | [New parameters in GRIB2 Code table 4.2/New GRIB2 parameters and product definition template for observational satellite data](#A2015_2_2_1) | Val | prev. 2013-2.1.1/2.2.5 |
| 2015-2.2.3 | DRMM-III | [New GRIB2 parameter for aviation](#A2015_2_2_3) | FT2015-2 |  |
| 2015-2.2.4 | DRMM-III | [New parameters for fire modelling](#A2015_2_2_4) | FT2015-2 |  |
| 2015-2.2.5 | DRMM-III | [New GRIB parameters for climate studies](#A2015_2_2_5) | FT2015-2 |  |
| 2015-2.2.6 | DRMM-III | [New entry in the Common Code table C-12 by Italy](#A2015_2_2_6) | FT2015-2 |  |
| 2015-2.2.7 | DRMM-III | [New parameters in GRIB2 Code Table 4.1 4.2 and 4.3 for satellite data and products](#A2015_2_2_7) | FT2015-2 |  |
| 2015-2.2.8 | DRMM-III | [New parameters in GRIB2 Code Table 4.2 for moisture, radiation and clouds](#A2015_2_2_8) | FT2015-2,Code table 4.5 (FT2016-1) |  |
| 2015-2.2.9 | DRMM-III | [New GRIB2 Parameters in Code table 4.2](#A2015_2_2_9) | FT2015-2 |  |
| 2015-2.2.10 | DRMM-III | [New parameters for hydrological modelling](#A2015_2_2_10) | FT2015-2 |  |
| 2015-2.2.11 | DRMM-III | [Validated GRIB templates for spatio-temporal changing tiles and proposal for explanatory notes](#A2015_2_2_11) | FT2015-2 | prev. 2014-2.2.5 |
|  |  |  |  |  |
| 2014-2.2.1 | DRMM-II | [New parameters and fixed surface types to represent ground surface conditions in analyses or models](#A2015_4_2_1_1) | FT2015-2Pre-operational07/05/2015 |  |
| 2014-2.2.2 | DRMM-II | [A product definition template for statistics over an ensemble](#A2014_2_2_2) | Val |  |
| 2014-2.2.7 | DRMM-II | [Octets of forecast time in product definition template 4.44](#A2014_2_2_7) | 4 Nov. 2015CBS-Ext.(2014) |  |
|  |  |  |  |  |
| 2013-2.2.1 | DRMM-I | [GRIB2 new compression method – CCSDS libaec](#A2013_2_2_1) | Val |  |
|  |  |  |  |  |
| 2012-2.2.9 | DRC-IV | [GRIB template for 4-D Trajectory grid definition](#A2012_2_2_9) | Val |  |
|  |  |  |  |  |
| 2011-2.3.5 | DRC-III | [GRIB template for rotated tilted Mercator projection](#A2011_2_3_5) | Val |  |

 **FM 94 BUFR/FM 95 CREX**

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| ID | Approval for Validation | Proposals | Status | Remarks |
| 2015-3.1.1 | DRMM-III | [Note for encoding geographic coordinates in BUFR and a new element descriptor for encoding coordinate reference systems](#A2015_3_1_1) | Val |  |
| 2015-3.2.1 | DRMM-III | [New BUFR code table entry for national practice dropsonde data](#A2015_3_2_1) | FT2015-2 |  |
| 2015-3.2.2 | DRMM-III | [New BUFR sequence and elements for GPM Microwave Imager (GMI)](#A2015_3_2_2) | FT2015-2 |  |
| 2015-3.2.3 | DRMM-III | [New parameter in Common Code Table C5 for new satellite JASON-3](#A2015_3_2_3) | FT2015-2 |  |
| 2015-3.2.4 | DRMM-III | [BUFR sequence and elements for Atmospheric Laser Doppler Instrument (ALADIN)](#A2015_3_2_4) | FT2016-1 |  |
| 2015-3.2.6 | DRMM-III | [Modification to wave spectra observation template (3 08 015 and 3 08 016)](#A2015_3_2_6) | FT2016-1 | prev. 2008-3.1.15 |
| 2015-3.2.7 | DRMM-III | [New entry in BUFR Code and Flag tables](#A2015_3_2_7) | FT2015-2 |  |
| 2015-3.2.8 | DRMM-III | [New Descriptor for radar data products](#A2015_3_2_8) | Val |  |
| 2015-3.2.9 | DRMM-III | [New BUFR code table entry for one-hour and n-minute data from AWS stations](#A2015_3_2_9) | FT2015-2 |  |
| 2015-3.2.10 | DRMM-III | [New BUFR code table entries for radio occultation data of FY-3C](#A2015_3_2_10) | FT2015-2 |  |
| 2015-3.2.11 | DRMM-III | [New BUFR code table entries for high resolution radiosonde data](#A2015_3_2_11) | FT2015-2 |  |
| 2015-3.2.12 | DRMM-III | [Revision of BUFR sequence 3 02 067](#A2015_3_2_12) | FT2015-2 | prev. 2012-3.2.7 |
| 2015-3.2.13 | DRMM-III | [BUFR elements and sequence for international exchange of road weather information](#A2015_3_2_13) | FT2016-1 |  |
| 2015-3.2.14 | DRMM-III | [New sub-category entries in BUFR Table A for radiation and acid rain data](#A2015_3_2_14) | FT2015-2 |  |
| 2015-3.2.15 | DRMM-III | [Synoptic reports from sea stations suitable for VOS observation data](#A2015_3_2_15) | 3 02 064 (FT2015-2),Others (FT2016-2 with pre-operational option) | prev. 2014-3.2.8 |
| 2015-5.1 | DRMM-III | [Clarifications of B/C 30 and B/C 32 Regulations](#A2015_5_1) | ABC2016 |  |
| 2015-5.2 | DRMM-III | [Strategy for amending Annex II to B/C 25 Regulations, except for 3 01 128 (BUFR Table D)](#A2015_5_2) | ABC2016 |  |
| 2015-5.3 | DRMM-III | [Clarification of upper-air wind reporting nearby the Poles](#A2015_5_3) | ABC2016 |  |
|  |  |  |  |  |
| 2014-3.1.2 | DRMM-II | [Clarification of Regulation 94.1.5](#A2014_3_1_2) | 4 Nov. 2015CBS-Ext.(2014) |  |
| 2014-3.2.7 | DRMM-II | [BUFR template for n-minute AWS data (3 07 092)](#A2014_3_2_7) | Val |  |
| 2014-3.2.9 | DRMM-II | [Proposed BUFR sequence for reporting observations from offshore platforms](#A2014_3_2_9) | Val |  |
| 2014-3.2.10 | DRMM-II | [Proposed modifications to the BUFR template for reporting data from Argo profiling floats](#A2014_3_2_10) | FT2015-2 |  |
| 2014-11.2 | DRMM-II | [WIGOS Station Identifier](#A2014_11_2) | Val |  |
|  |  |  |  |  |
| 2013-3.2.2 | DRMM-I | [Proposal for a BUFR template for radar wind profiler](#A2013_3_2_2) | Val |  |
| 2013-3.2.4 | DRMM-I | [Satellite-derived winds in BUFR](#A2013_3_2_4) | Val |  |
|  |  |  |  |  |
| 2012-3.2.11 | DRC-IV | [A BUFR Sequence to append data for national use to Canadian SYNOP reports](#A2012_3_2_11) | Val |  |
| 2012-3.2.12 | DRC-IV | [New BUFR/CREX entries for dual polarization radar data](#A2012_3_2_12) | FT2015-2 |  |

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