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| WORLD METEOROLOGICAL ORGANIZATION  COMMISSION FOR BASIC SYSTEMS  -----------------------------  THIRD MEETING OF  INTER-PROGRAMME EXPERT TEAM ON DATA REPRESENTATION MAINTENANCE AND MONITORING  BEIJING, CHINA, 20 - 24 JULY 2015 |  | IPET-DRMM-III / Doc. 7.2(2a)  (16. 7. 2015)  -------------------------  ITEM 7.2  ENGLISH ONLY |

MIGRATION TO TABLE-DRIVEN CODE FORMS (TDCF)

**Activities of Migration to TDCF in China**

*Submitted by Fang Zhao (China)*

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**Summary and Purpose of Document**

The document introduces activities and issues related to the migration to TDCF in China.

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**ACTION PROPOSED**

The meeting is invited to take note of the information.

**DISCUSSION**

Within China both SYNOP TAC and BUFR data are converted directly from native format reports in parallel now after collected at national level, and then disseminated on GTS, while BUFR TEMP data are still converted from TAC message. All the BUFR messages collected from GTS would be ingested into the operational database system by the end of this year and be available to the end users.

Besides disseminate BUFR messages on GTS of category 1, CMA is now making the strategy of migrate from native format to universal code form. We are doing assessment of using TDCF to present more observations and products. Several types of data are under consideration as follows:

* Surface
* Upper-air
* Radiation
* SHIP and BUOY
* GNSS/MET
* Lightning
* Wind profiler
* Acid rain
* Aerosol
* Agricultural and ecological observations

For now, several national BUFR templates are developed as follows:

* Surface observations from one-hour period of AWS (refer to TM307080, 307091, 307096)
* Surface observations from n-minute period of AWS (refer to TM307092)
* High-resolution radiosonde observations (with 1 sec resolution in vertical)
* Radiation observations from one-hour period
* Radiation observations from n-minute period
* Acid rain observations

The pilot project of generating BUFR data from on-site software would be implemented this year for these types of data using the national templates.

Some issues are raised as follows:

* There are still many elements couldn’t be reported using existing Table B descriptors and have to be defined as local descriptors.
* Without the vocabulary or sufficient definitions and explanations, it’s a big challenge to decide if the descriptor or the code figures in the code table are the exact one.
* For code tables of table B Descriptor, some has entries reserved for local use, but however some doesn’t have, so the new entry requirements have to be submitted to WMO.
* For some code tables like 0 02 081 (type of balloon), the existing code figure couldn’t meet the requirement, we do need to request new entries, but without explanation or guide, it’s hard to study and imitate the universal way of coding just from the literal meaning of the existing code figures.