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| WORLD METEOROLOGICAL ORGANIZATIONCOMMISSION FOR BASIC SYSTEMS-----------------------------THIRD MEETING OFINTER-PROGRAMME EXPERT TEAM ONCODES MAINTENANCEMARRAKECH, MOROCCO, 15 - 19 APRIL 2019 |  | IPET-CM-III / Doc. 7.2.402.04.2018-------------------------ITEM 7.2ENGLISH ONLY |

MIGRATION TO TABLE DRIVEN CODE FORMS

Reports on status of migration to TDCF in RA IV

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**Summary and Purpose of Document**

The document describes the status of migration to Table-Driven Code Forms in RA IV, highlighting the results of a migration survey.

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**ACTION PROPOSED**

This is an information document no action is proposed.

**ANNEXES:**

 None

**DISCUSSION**

The World Meteorological Organization (WMO) Regional Association IV (North America, Central America and the Caribbean) consist of twenty-seven (27) Members of which, five countries are Members of other regional associations. One of its Members, the British Caribbean Territories, consists of five countries Anguilla, the British Virgin Islands, the Cayman Islands, Montserrat and the Turks and Caicos Islands. Further, there are three (3) countries, which are not members of the WMO but transmit their synoptic observations via the WMO Information System in RA IV.

A survey was conducted in the region in November 2018, to ascertain how many Members had transitioned their synoptic observations from traditional alphanumeric codes (SYNOP, TEMP and CLIMAT) to Binary Universal Form of Representation (BUFR).

**SURVEY RESULTS**

Eleven (11) countries replied to the survey, with only four (4) countries indicating that they disseminate TCDF reports to the Global Telecommunication System (GTS) i.e. SYNOP, TEMP and CLIMAT where applicable. The main obstacle identified in the transmission of the observations was software for the encoding and decoding of observations. Of the eleven (11) countries, eight (8) indicated that they were not ready for the cessation of TAC reports from meteorological centres.

**TRAINING AND SOFTWARE OPPORTUNITIES IN RA IV**

There was only one training session specifically on the encoding and decoding of observations BUFR in RA IV. This was in 2005 in Costa Rica with assistance from Environment Canada and the software which the participants were exposed to was *libecbufr*. This is software which was created in-house in Environment Canada. The participants had to create an input template as a placeholder for the meteorological elements observed which would ingested by the software in the creation of the BUFR message.

The Caribbean Meteorological Organization (CMO) in 2014, created graphical user interface (GUI) sitting for the freely the available BUFR encoding/decoding software from the European Centre for Medium-Range Weather Forecasts (ECMWF) *bufrdc\_xxxxxx*. The GUI and the bufr software were provided to the Anglophone along with the software *VirtualBox*. The CMO also worked with two countries to write the technical specifications for new meteorological workstations which included the encoding/decoding of observations into bufr.

**PROBLEMS IDENTIFIED FOR NON-TRANSITION**

* All of the freely available encoding software uses a non-Windows operating system, which has been identified as a problem for some users;
* The ECMWF bufr software is now discontinued and although the table can be updated, the encoding/decoding of new synoptic stations cannot be completed, since some of the files are missing from the synop2bufr package.

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