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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 (3a)  (13/07/2015)  -------------------------  ITEM 7.2  ENGLISH ONLY |

MIGRATION TO TABLE-DRIVEN CODE FORMS (TDCF)

**Migration to BUFR in Brazil.**

*Submitted by José Mauro de Rezende*

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**Summary and Purpose of Document**

This document summarizes progress and issues related to the migration to BUFR in Region III

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**ACTION PROPOSED**

The meeting is invited to take note of the contents and offer suggestions or comments.

**DISCUSSION**

The migration towards TDCF in Brazil and in Region III started first with RTH Brasilia doing conversion from TAC “on the fly” by the Message Switching System. It still continues but RTH Buenos Aires took this task for the southern countries.

In the meantime, RTH Brasilia developed a routine the generate CLIMAT bulletins into BUFR directly from the data base, without conversion, using the libecbufr libraries developed by Environmental Canada.

Also there is an automatic process to generate BUFR bulletins from the Automatic Weather Station network including more than 400 stations. The SYNOP from manned stations are still being converted. A process to generate BUFR report from the observation point is under implementation. It is expected to have at least 10% of the stations ready by the end of this year.

The SYNOP, SHIP and BUOY bulletins received from other organization in Brazil like Air Force and Navy are converted into BUFR by the Message Switching System at RTH Brasilia. Both alphanumerical and binary bulletins are inserted in the GTS.

The Air Force has a program to produce AMDAR bulletins directly from the air companies. At the moment only the cruiser data (FIR Atlantic) are being reported in alphanumerical format. Soon the ascent and descent data over the land will be reported too. They also promised to report everything in BUFR.

Regarding the radiosonde reports, most of the ground equipment were updated and they are able to report high resolution observation data, but many of them only report TEMP and PILOT bulletins which are later converted into BUFR at RTH Brasilia. A small number of stations also sends both types of report. There are some level of negotiations with the Air Force authorities to make the high resolution BUFR report available too.

Some National Centres in Region III, mainly Santiago and Maracay had implemented BUFR applications to generated reports directly from their local data base. Other are working in similar way to have a tool to create the BUFR bulletins. (Quito, Montevideo and Lima).