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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.3.2 (7)  (01.07.2015)  -------------------------    ITEM 3.2    ENGLISH ONLY |

**New entry in BUFR Code and Flag Tables**

*Submitted by Thomas Heinemann (EUMETSAT)*

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**Summary and Purpose of Document**

This document proposes three new entries in the BUFR/CREX Table B, class 33.

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**ACTION PROPOSED**

The meeting is requested to review the proposed new entry and approve it for validation.

**DISCUSSION**

BUFR sequence 3 10 011 (ATOVS field of view variables) is one of the most widely-used sequences for satellite observations. This sequence is applied by EUMETSAT to the encoding of ATOVS data from Metop and NOAA satellites. These data are being disseminated via the GTS and EUMETSAT’s EUMETCast DVB multicast service. EUMETSAT users have requested the addition of the Noise Equivalent Delta-Temperature (NEdT) of the warm target calibration to the data to improve the quality filtering.

The modification of sequence 3 10 011 is not recommended due to its widespread application by a large number of users. It is therefore suggested to add the information in the form of a quality indicator. For completeness and to be prepared for planned future satellite instruments also the NEdT quality indicators for cold target calibration and the overall NEdT are proposed.

**PROPOSAL**

In order to have a scheme to add the NEdT as a quality indicator, the following new entries to BUFR/CREX Table B are suggested:

**BUFR/CREX Table B, class 33 (quality information)**

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| **TABLE**  **REFERENCE** | **ELEMENT**  **NAME** | **BUFR** | | | | **CREX** | | |
| **F X Y** | **UNIT** | **SCALE** | **REFERENCE**  **VALUE** | **DATA**  **WIDTH**  **(Bits)** | **UNIT** | **SCALE** | **DATA**  **WIDTH**  **(Characters)** |
| 0 33 089 | Warm target calibration quality Noise equivalent delta temperature | K | 2 | 0 | 12 | °C | 2 | 4 |
| 0 33 090 | Cold target calibration quality Noise equivalent delta temperature | K | 2 | 0 | 12 | °C | 2 | 4 |
| 0 33 091 | Overall calibration quality Noise equivalent delta temperature | K | 2 | 0 | 12 | °C | 2 | 4 |

#### Conclusion

The NEdT will give users of ATOVS data additional information for quality filtering and data assimilation. The change of the of the widely-used sequence for these data can be avoided by adding NEdT parameters to class 33 of the BUFR/CREX Table B.

The meeting is invited to consider the proposed new table entries, and to endorse its addition to the existing tables for validation.