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| WORLD METEOROLOGICAL ORGANIZATION  COMMISSION FOR BASIC SYSTEMS  -----------------------------  SECOND MEETING OF  INTER-PROGRAMME EXPERT TEAM ON CODES MAINTENANCE  OFFENBACH, GERMANY, 28 MAY - 1 JUNE 2018 |  | IPET-CM-II / Doc. 2.2 (1)  06.04.2018  -------------------------  ITEM 2.2  ENGLISH ONLY |

GRIB

**Additional elements for optimal cloud analysis and instantaneous rain rate products**

*Submitted by* *Simon Elliott (EUMETSAT), Daniel Lee (EUMETSAT)*

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**Summary and Purpose of Document**

This document proposes new entries to GRIB Code tables 4.2 and 4.218 in order to encode optimal cloud analysis products produced at EUMETSAT.

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**ACTION PROPOSED**

The meeting is requested to approve the contents for inclusion within the next update to the WMO Manual on Codes.

**DISCUSSIONS**

EUMETSAT has produced the Optimal Cloud Analysis and Instantaneous Rain Rate GRIB product for several years. Historically, reserved entries in Code Tables 4.2 and 4.218 have been used to encode the necessary variables. In order to make these known via WMO, and in order to prevent name conflicts in the future, EUMETSAT wishes to register them by adding the appropriate entries to the Manual on Codes.

**PROPOSAL**

***“Amend”, “add”, “delete” are the keywords***

*Add* the following elements to GRIB Table 4.2, discipline 3 – Space products, parameter category 1 – quantitative products:

|  |  |  |
| --- | --- | --- |
| ***Number*** | ***Parameter*** | ***Units*** |
| 98 | Correlation coefficient between MPE rain-rates for the co-located IR data and the microwave data rain-rates | Numeric |
| 99 | Standard deviation between MPE rain-rates for the co-located IR data and the microwave data rain-rates | kg m–2 s-1 |

*Add* the following elements to GRIB Table 4.2, discipline 3 – Space products, parameter category 2 – cloud properties:

|  |  |  |
| --- | --- | --- |
| ***Number*** | ***Parameter*** | ***Units*** |
| 30 | Measurement cost | Numeric |
| 31 | Upper layer cloud optical depth | Numeric |
| 32 | Upper layer cloud top pressure | Pa |
| 33 | Upper layer cloud effective radius | m |
| 34 | Error in upper layer cloud optical depth | Numeric |
| 35 | Error in upper layer cloud top pressure | Pa |
| 36 | Error in upper layer cloud effective radius | m |
| 37 | Lower layer cloud optical depth | Numeric |
| 38 | Lower layer cloud top pressure | Pa |
| 39 | Error in lower layer cloud optical depth | Numeric |
| 40 | Error in lower layer cloud top pressure | Pa |

*Add* the following entries to Code table 4.218 – Pixel scene type:

|  |  |
| --- | --- |
| ***Code Figure*** | ***Meaning*** |
| 111 | Single Layer Water Cloud |
| 112 | Single Layer Ice Cloud |