

## **WMO CODE FORM CHANGES**

*(Submitted by WMO)*

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### **Summary and purpose of document**

This document contains the additions to WMO Binary Code Tables (BUFR) and CREX Tables which have been approved by the President of WMO and will come into force on 7 November 2001.

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### **ACTION PROPOSED**

The Meeting is invited to take note of the information contained in this document and express any suggestion, remarks or request found necessary in the field of WMO Codes Forms used for exchange of satellite data

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## DISCUSSION

### LATEST UPDATES TO WMO CODES RELATED TO SATELLITES

#### 1. ADDITIONS TO CODE TABLES

The following additions to WMO Binary Code Tables (BUFR) and CREX Tables will come into force on 7 November 2001.

##### 1.1 Additional entries in Code table 0-02-163 Height assignment method

*(The tracers used in Eumetsat's derivation of clear sky water vapour winds from 6.7 $\mu$  (WV) Meteosat image data represent the motion of a layer of atmosphere, rather than a single level. For this reason, the height assignment of the winds can be best described by giving explicit details about the form of the cumulative contribution function in the region of the tracer. Four new BUFR code table entries are required for this purpose, as per the following table.)*

Proposed code table entry	Meaning
9	Cumulative contribution function -10 percent height
10	Cumulative contribution function -50 percent height
11	Cumulative contribution function -90 percent height
12	Cumulative contribution function – height of maximum gradient

##### 1.2 New significance qualifiers

*(As part of the generation of clear sky radiance data from Meteosat images, Eumetsat derive various quality control indicators for the radiances. These are calculated as percentage confidences and are derived independently using (i) cloud fraction, and (ii) temperature standard deviation. A final overall as percentage confidence is calculated by a combination of the other values. A method is required to represent these different pieces of quality control information unambiguously in BUFR messages.)*

##### New descriptor:

BUFR 0 08 033      Method of derivation of percentage confidence      Code table 0 0 7  
 CREX B 08 033      Code table 0 3

Code figure      Meaning

0      Reserved  
 1      Percentage confidence calculated using cloud fraction  
 2      Percentage confidence calculated using standard deviation of temperature  
 3-126      Reserved  
 127      Missing

Add Note under class 8: (6)      Descriptor 0 08 033 is to be used by preceding the element 0 33 007 as part of quality control information in order to specify the method used to calculate the percentage confidence.

**1.3 Additions requested in Tables B, Class 27 and Class 28:**

	BUFR	CREX
0 27 004 Alternate latitude (high accuracy)	Degree 5 -9000000 25	Degree 5 7
0 28 004 Alternate longitude (high accuracy)	Degree 5 -18000000 26	Degree 5 8

Change names of existing entries 0 27 003 and 0 28 003 to:

0 27 003 Alternate latitude (coarse accuracy)  
 0 28 003 Alternate longitude (coarse accuracy)

**1.4 Representation of Ascending vs. Descending Orbit within BUFR/CREX**

*(Introduction of a new descriptor to represent, within BUFR/CREX class 8, whether a satellite is on an ascending or descending track.)*

0 08 075 Ascending/Descending Orbit Qualifier Code table 0 0 2

B 08 075 Ascending/Descending Orbit Qualifier Code table 0 1

Code table 0-08-075

- 0 - Ascending orbit
- 1 - Descending orbit
- 2 - Reserved
- 3 - Missing

**1.5 Common Code Table C-5: Satellite identifier:**

Modify entry:

171 MTSAT-1 to 171 MTSAT-1R

**1.6 Common Code Table C-8: Satellite Instruments:**

Delete entry 206.

Add:

207 EUMETSAT Radiometer SEVIRI Spinning Enhanced Visible and Infrared Imager

**2. OPERATIONAL IMPLEMENTATION OF FM 92 XII GRIB EDITION 2**

The Executive Council (EC LIII) in June 2001 endorsed Recommendation 5 of the Commission for Basic Systems (CBS-XII) which will come into force on 7 November 2001 with the operational implementation of **FM 92 XII GRIB EDITION 2**. With FM 92 GRIB Edition 2 and FM 94 BUFR, the WMO Code Standards provide the tools to describe, transmit and exchange practically all types of satellite data in a compressed manner.