Draft amendments to the Manual on Codes (WMO No. 306) by the fast-track procedure

CONTENTS

FM 92 GRIB – General regularly distributed information in binary form

1. 2017-2.2.1/2.2.3(CM-I)/Reporting quality values in GRIB2

ADD:

Code table 4.16 – Quality value associated with parameter

Code figure	Meaning
0	Confidence index (see Note 2)
1	Quality indicator (see Note 3 and Code table 4.244)
2	Correlation of product with used calibration product (see Note 4)
3	Standard deviation (see Note 5)
4	Random error (see Note 5)
5-191	Reserved
192-254	Reserved for local use
255	Missing

Notes:

(1) When a non-missing value is used from this code table, the original data value is a quality value associated with the parameter defined by octets 10 and 11 of the product definition template.

(2) The original data value is a non-dimensional number from 0 to 1, where 0 indicates no confidence and 1 indicates maximal confidence.

(3) The original data value is defined by Code table 4.244

(4) The original data value is a non-dimensional number without units.

(5) The original data value is in the same units as the parameter defined by octets 10 and 11 of the product definition template.

Code table 4.244 – Quality indicator

Code figure	Meaning
0	No quality information available
1	Failed
2	Passed
3-191	Reserved
192-254	Reserved for local use
255	Missing

Product definition template 4.35 – satellite product with or without associated quality values

Octet No.	Contents
10	Parameter category (see Code table 4.1)
11	Parameter number (see Code table 4.2)
12	Type of generating process (see Code table 4.3)
13	Observation generating process identifier (defined by originating centres)
14	Quality value associated with parameter (see Code Table 4.16)
15	Number of contributing spectral bands (NB)
	16– Repeat the following 11 octets for each contributing band (nb = 1, NB)
(16+11(nb–1))–(17+11(nb–1))	Satellite series of band nb (code table defined by originating/generating centre)
(18+11(nb–1))–(19+11(nb–1))	Satellite numbers of band nb (code table defined by originating/ generating centre)
(20+11(nb–1))–(21+11(nb–1))	Instrument types of band nb (code table defined by originating/ generating centre)

(22+11(nb–1)) Scale factor of central wave number of band nb

(23+11(nb–1))–(26+11(nb–1)) Scaled value of central wave number of band nb (units: m^{-1})

Note: For "satellite series of band nb", "satellite numbers of band nb" and "instrument types of band nb", it is recommended to encode the values as per BUFR Code tables 0 02 020, 0 01 007 (Common Code table C–5) and 0 02 019 (Common Code table C–8), respectively.

FM 94 BUFR – Binary universal form for the representation of meteorological data

2. 2017-2.4.3(CM-I)/BUFR entries for FY-3 VASS Products

ADD:

in BUFR Table D,

TABLE REFERENCE F X Y	TABLE REFERENCES	ELEMENT NAME
		(VASS field of view variables)
3 10 068	0 08 070	Vertical sounding product qualifier
	0 01 033	Identification of originating/generating centre
	0 01 034	Identification of originating/generating sub-centre
	0 01 007	Satellite identifier
	0 02 019	Satellite instruments
	0 12 064	Instrument temperature
	0 05 040	Orbit number
	2 01 136	Increase bit width
	0 05 041	Scan line number
	2 01 000	Cancel increase bit width
	0 05 043	Field of view number
	3 01 011	Year, Month, Day
	3 01 012	Hour, Minute
	2 01 138	Increase bit width
	2 02 131	Change scale
	0 04 006	Second
	2 02 000	Cancel change scale
	2 01 000	Cancel increase bit width
	0 05 001	Latitude (high accuracy)
	0 06 001	Longitude (high accuracy)
	2 02 126	Change scale
	0 07 001	Height of station
	2 02 000	Cancel change scale
	0 10 007	Height
	0 07 024	Satellite zenith angle
	0 05 021	Bearing or azimuth
	0 07 025	Solar zenith angle
	0 05 022	Solar azimuth
	0 13 040	Surface flag
	0 12 101	Temperature/air temperature(land or ocean surface temperature)
	2 01 131	Increase bit width
	2 02 129	Change scale
	0 11 011	Wind direction at 10 m (ocean surface wind)
	2 02 000	Cancel change scale
	2 01 000	Cancel increase bit width
	2 01 130	Increase bit width

	2 02 129	Change scale
	0 11 012	Wind speed at 10 m (ocean surface wind)
	2 02 000	Cancel change scale
	2 01 000	Cancel increase bit width
	0 20 029	Rain flag
	0 20 010	Cloud cover (total)
	0 20 014	Height of top of cloud
	0 13 162	Cloud liquid water
	0 14 050	Emissivity

TABLE REFERENCE F X Y	TABLE REFERENCES	ELEMENT NAME
		(VASS channel variables)
3 10 069	0 05 042	Channel number
	2 01 139	Increase bit width
	0 02 155	Satellite channel wavelength
	2 01 000	Cancel increase bit width
	0 25 077	Bandwidth correction coefficient 1
	0 25 078	Bandwidth correction coefficient 2
	0 33 007	Per cent confidence
	2 01 132	Increase bit width
	2 02 129	Change scale
	0 12 063	Brightness temperature
	2 02 000	Cancel change scale
	2 01 000	Cancel increase bit width

TABLE REFERENCE F X Y	TABLE REFERENCES	ELEMENT NAME
		(VASS MWTS report of FY-3)
3 10 070	3 10 068	VASS field of view variables
	1 01 013	Replicate 1 descriptor 13 times
	3 10 069	VASS channel variables
		(VASS MWHS report of FY-3)
3 10 071	3 10 068	VASS field of view variables
	1 01 015	Replicate 1 descriptor 15 times
	3 10 069	VASS channel variables
		(VASS IRAS report of FY-3)
3 10 072	3 10 068	VASS field of view variables
	1 01 026	Replicate 1 descriptor 26 times
	3 10 069	VASS channel variables

in BUFR/CREX Table B,

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR				CREX		
		UNIT	SCALE	REFERENCE VALUE	DATA WIDTH (Bits)	UNIT	SCALE	DATA WIDTH (Characters)
0 13 162	Cloud liquid water	kg m^{-2}	2	0	8	kg m^{-2}	2	3

Common code tables to binary and alphanumeric codes

3. PFC2017-2.1/Corrections to Common Code table C-2 by South Africa

AMEND:

in Common Code table C–2,

Date of assignment of number (necessary after 30/06/2007)	Code figure for $r_a r_a$ (Code table 3685)	Code figure for BUFR (Code table 0 02 011)	
Before	97	97	BAT-16P (South Africa)
Before	98	98	BAT-16G (South Africa)
Before	99	99	BAT-4G (South Africa)

TO

Date of assignment of number (necessary after 30/06/2007)	Code figure for $r_a r_a$ (Code table 3685)	Code figure for BUFR (Code table 0 02 011)	
Before	97	97	iMet-2/iMet-1500 RDF radiosonde with pressure sensor chip (South Africa)
Before	98	98	iMet-2/iMet-1500 GPS radiosonde with derived pressure from GPS height (South Africa)
Before	99	99	iMet-2/iMet-3200 GPS radiosonde with derived pressure from GPS height (South Africa)

4. PFC2017-2.2/New entry in Common Code table C-2 by Japan

ADD:

in Common Code table C-2,

Date of assignment of number (necessary after 30/06/2007)	Code figure for $r_a r_a$ (Code table 3685)	Code figure for BUFR (Code table 0 02 011)	
(2 May 2018)	36	136	Meisei iMDS-17 GPS dropsonde w/thermistor sensor, capacitance relative humidity sensor, and capacitance pressure sensor (Japan)

5. PFC2017-2.3/New entry in Common Code table C-12 by France

ADD:

in Common Code Table C–12,

Code figure	Name	Code figure	Name
85	Toulouse (RSMC)	202	Institut Français de Recherche pour l'Exploitation de la Mer