(14 November 2013)

BUFR TABLES RELATIVE TO SECTION 3

BUFR Table B – *Classification of elements*

F	X	Class	Comments	Status
NONE				

Class 01 – Identification

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 01 097	Star catalog number	Numeric	0	0	13	Numeric	0	4	Validation
0 01 098	Type of product	Code table	0	0	12	Code table	0	4	Validation

Class 02 – Instrumentation

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 02 006	Data obtained by	Code table	0	0	3	Code table	0	1	Validation
0 02 007	Type of sensor for water level measuring instrument	Code table	0	0	4	Code table	0	2	Validation
0 02 098	Type of wave sensor	Code table	0	0	4	Code table	0	2	Validation
0 02 147	Method of transmission to collection centre	Code table	0	0	7	Code table	0	2	Validation

Class 04 – Location (time)

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 04 008	Seconds within a minute (high accuracy)	s	7	0	30				Validation

Class 07 – Location (vertical)

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 07 011	Pressure (high precision)	Pa	0	0	30	Pa	0	10	Validation

Class 08 – Significance qualifiers

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 08 015	Significance qualifier for sensor	Code table	0	0	3	Code table	0	1	Validation
0 08 027	Matrix geometry	Code table	0	0	6	Code table	0	2	Validation
0 08 032	Status of operation	Code table	0	0	4	Code table	0	2	Validation
0 08 045	Particulate matter characterization	Code table	0	0	8	Code table	0	3	Validation

Class 12 – Temperature

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 12 060	AWS enclosure internal temperature	K	1	0	12	°C	1	3	Validation

Class 13 – Hydrographic and hydrological elements

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 13 119	Snowfall amount	m	3	–10	14	m	3	5	Validation
0 13 120	Snow amount, water equivalent	kg m–2	1	–10	14	kg m–2	1	5	Validation

Class 14 – Radiation and radiance

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 14 071	Global UV spectral irradiance (see Note x)	W m–2 nm–1	6	–1048576	21	W m–2 nm–1	6	7	Validation
0 14 073	Global erythemal irradiation (see Note x+1)	J m–2	–3	–32	6	J m–2	–3	2	Validation

Notes:

(x) Global UV spectral irradiance (0 14 071) is UV flux density for individual wavelengths specified. 0 14 071 shall be preceded by 0 02 071 (Spectrographic wavelength).

(8) *Global UV irradiation (0 14 072) is UV energy integrated over period specified for spectral band specified. 0 14 072 shall be preceded by a time period descriptor and by 0 02 071 (Spectrographic wavelength) and 0 02 072 (Spectrographic width). E.g. if 0 14 072 is used for Global UV-B irradiation, 0 02 071 and 0 02 072 shall specify spectral band 280 to 315 nm.*

(x+1) Global erythemal irradiation (0 14 073) is UV energy weighted by the CIE Action Spectrum integrated over period specified. 0 14 073 shall be preceded by a time period descriptor, 0 02 071 (Spectrographic wavelength) and 0 02 072 (Spectrographic width).

Class 15 – Physical/chemical constituents

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 15 007	Molecular mass	u	2	0	15	u	2	5	Validation
0 15 009	Integrated number density	m–2	0	0	10	m–2	0	4	Validation
0 15 010	Partial pressure	Pa	0	0	10	Pa	0	4	Validation
0 15 022	Integrated number density	m–3	0	0	10	m–3	0	4	Validation
0 15 023	Mass density	kg m–3	0	0	10	kg m–3	0	4	Validation
0 15 028	Photo dissociation rate	s–1	0	0	10	s–1	0	4	Validation
0 15 040	Particulate matter diameter	m	8	0	9	m	8	3	Validation
0 15 043	Number of averaging kernel layers	Numeric	0	0	10	Numeric	0	4	Validation
0 15 044	Averaging kernel value	Numeric	6	–5000000	24	Numeric	6	8	Validation

Class 20 – Observed phenomena

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 20 079	Snow/Ice crystals indicator	Flag table	0	0	2	Flag table	0	1	Validation
0 20 080	Cloud amount percentage interval	Code table	0	0	3	Code table	0	1	Validation

Class 21 – Radar data

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 21 028	Specific differential phase	deg m–1	5	–200	11	deg m–1	2	4	Validation

Class 22 – Oceanographic elements

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 22 179	Software version of profile recorder	CCITT IA5	0	0	256	Character	0	256	Validation
0 22 180	Auto launcher software version number	CCITT IA5	0	0	256	Character	0	256	Validation
0 22 181	Instrument manufacturer's serial number	CCITT IA5	0	0	32	Character	0	32	Validation
0 22 186	Direction from which waves are coming	degree true	0	0	9	degree true	0	3	Validation
0 22 187	Directional spread of wave	°	0	0	9	°	0	3	Validation

Class 25 – Processing information

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 25 144	Matrix dimension (i-axis)	Numeric	0	0	9	Numeric	0	3	Validation
0 25 145	Matrix dimension (j-axis)	Numeric	0	0	9	Numeric	0	3	Validation
0 25 151	Star relative magnitude	Numeric	3	–20000	14	Numeric	3	5	Validation
0 25 152	Star brightness temperature	K	0	0	17	K	0	6	Validation
0 25 153	Limb	Code table	0	0	2	Code table	0	1	Validation

Class 33 – Quality information

TABLE REFERENCE F X Y	ELEMENT NAME	BUFR UNIT	BUFR SCALE	BUFR REFERENCE VALUE	BUFR DATA WIDTH (Bits)	CREX UNIT	CREX SCALE	CREX DATA WIDTH (Characters)	Status
0 33 009	Relative error	%	2	0	14	%	2	5	Validation
0 33 029	Correlation coefficient	Numeric	2	–100	8	Numeric	2	3	Validation