

## COMMON CODE TABLES TO BINARY AND ALPHANUMERIC CODES

	Status
<b>COMMON CODE TABLE C-1: <i>Identification of originating/generating centre</i></b> F <sub>1</sub> F <sub>2</sub> for alphanumeric codes F <sub>3</sub> F <sub>3</sub> F <sub>3</sub> for alphanumeric codes Code table 0 in GRIB Edition 1/Code table 0 01 033 for BUFR Edition 3 Octet 5 in Section1 of GRIB Edition 1/Octet 6 in Section 1 of BUFR Edition 3	Operational
<b>COMMON CODE TABLE C-2: <i>Radiosonde/ sounding system used</i></b> Code table 3685 - r <sub>a</sub> r <sub>a</sub> (Radiosonde/sounding system used) - for alphanumeric codes Code table 0 02 011 (Radiosonde type) in BUFR	Operational
<b>COMMON CODE TABLE C-3: <i>Instrument make and type for water temperature profile measurement with fall rate equation coefficients</i></b> Code table 1770 - I <sub>X</sub> I <sub>X</sub> I <sub>X</sub> (Instrument type for XBT, with fall rate equation coefficients) - for alphanumeric codes Code table 0 22 067 (Instrument type for water temperature profile measurement) in BUFR	Operational
<b>COMMON CODE TABLE C-4: <i>Water temperature profile recorder types</i></b> Code table 4770 - X <sub>R</sub> X <sub>R</sub> (Recorder type) - for alphanumeric codes Code table 0 22 068 (Water temperature profile recorder types) in BUFR	Operational
<b>COMMON CODE TABLE C-5: <i>Satellite identifier</i></b> I <sub>6</sub> I <sub>6</sub> I <sub>6</sub> for alphanumeric codes Code table 0 01 007 in BUFR Code used in GRIB Edition 2	Operational
<b>COMMON CODE TABLE C-6: <i>List of units for TDCF<sub>s</sub></i></b>	Operational
<b>COMMON CODE TABLE C-7: <i>Tracking technique/status of system used</i></b> Code table 3872 - s <sub>a</sub> s <sub>a</sub> for alphanumeric code Code table 0 02 014 in BUFR	Operational
<b>COMMON CODE TABLE C-8: <i>Satellite Instruments</i></b> Code table 0 02 019 in BUFR	Operational
<b>COMMON CODE TABLE C-11: <i>Originating/generating centres</i></b> BUFR 0 01 035 CREX Edition 2, 00000 in Group P00000ppp in Section 1 GRIB Editon 2, Octets 6-7 in Section 1 BUFR Edition 4, Octets 5-6 in Section 1	Operational
<b>COMMON CODE TABLE C-12: <i>Sub-centres of originating centres defined by entries in Common code tables C-1 or C-11</i></b> BUFR 0 01 034 BUFR Edition 3, Octet 5 in Section 1 BUFR Edition 4, Octets 7-8 in Section 1 GRIB Edition 1, Octet 26 in Section 1 GRIB Edition 2, Octets 8-9 in Section 1 CREX Edition 2, ppp in Group P00000ppp in Section 1	Operational

Status

**COMMON CODE TABLE C-13: *Data sub-categories of categories defined by entries in BUFR Table A***

Operational

BUFR Edition 4, Octet 12 in Section 1 (if = 255, it means other sub-category or undefined)  
CREX Editon 2, mmm in group Annnmmm of Section 1

**COMMON CODE TABLE C-14: *Atmospheric chemical or physical constituent type***

Operational

Code Table 4.230 in GRIB 2  
Code Table 0 08 046 in BUFR

## COMMON CODE TABLE C-1: *Identification of originating/generating centre*

Common Code table { F<sub>1</sub> F<sub>2</sub> for alphanumeric codes  
F<sub>3</sub> F<sub>3</sub> F<sub>3</sub> for alphanumeric codes  
Code table 0 in GRIB Edition 1/Code table 0 01 033 in BUFR Edition 3  
Octet 5 in Section 1 of GRIB Edition 1/Octet 6 in Section 1 of BUFR Edition 3

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3		Status
00	000	0	WMO Secretariat	Operational
			01-09: WMCs	Operational
01	001	1	Melbourne	Operational
02	002	2	Melbourne	Operational
03	003	3	)	Operational
04	004	4	Moscow	Operational
05	005	5	Moscow	Operational
06	006	6	)	Operational
07	007	7	US National Weather Service - National Centres for Environmental Prediction (NCEP)	Operational
08	008	8	US National Weather Service Telecommunications Gateway (NWSTG)	Operational
09	009	9	US National Weather Service - Other	Operational
			10-25: Centres in Region I	Operational
10	010	10	Cairo (RSMC)	Operational
11	011	11	)	Operational
12	012	12	Dakar (RSMC)	Operational
13	013	13	)	Operational
14	014	14	Nairobi (RSMC)	Operational
15	015	15	)	Operational
16	016	16	Casablanca (RSMC)	Operational
17	017	17	Tunis (RSMC)	Operational
18	018	18	Tunis - Casablanca (RSMC)	Operational
19	019	19	)	Operational
20	020	20	Las Palmas	Operational
21	021	21	Algiers (RSMC)	Operational
22	022	22	ACMAD	Operational
23	023	23	Mozambique (NMC)	Operational
24	024	24	Pretoria (RSMC)	Operational
25	025	25	La Réunion (RSMC)	Operational
			26-40: Centres in Region II	Operational
26	026	26	Khabarovsk (RSMC)	Operational
27	027	27	)	Operational
28	028	28	New Delhi (RSMC)	Operational
29	029	29	)	Operational
30	030	30	Novosibirsk (RSMC)	Operational
31	031	31	)	Operational
32	032	32	Tashkent (RSMC)	Operational
33	033	33	Jeddah (RSMC)	Operational
34	034	34	Tokyo (RSMC), Japan Meteorological Agency	Operational

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3	Status
35	035	35 )	Operational
36	036	36 Bangkok	Operational
37	037	37 Ulan Bator	Operational
38	038	38 Beijing (RSMC)	Operational
39	039	39 )	Operational
40	040	40 Seoul	Operational
		41-50: Centres in Region III	Operational
41	041	41 Buenos Aires (RSMC)	Operational
42	042	42 )	Operational
43	043	43 Brasilia (RSMC)	Operational
44	044	44 )	Operational
45	045	45 Santiago	Operational
46	046	46 Brazilian Space Agency - INPE	Operational
47	047	47 Colombia (NMC)	Operational
48	048	48 Ecuador (NMC)	Operational
49	049	49 Peru (NMC)	Operational
50	050	50 Venezuela (NMC)	Operational
		51-63: Centres in Region IV	Operational
51	051	51 Miami (RSMC)	Operational
52	052	52 Miami RSMC, National Hurricane Centre	Operational
53	053	53 Montreal (RSMC)	Operational
54	054	54 )	Operational
55	055	55 San Francisco	Operational
56	056	56 ARINC Centre	Operational
57	057	57 US Air Force - Air Force Global Weather Central	Operational
58	058	58 Fleet Numerical Meteorology and Oceanography Center, Monterey, CA, USA	Operational
59	059	59 The NOAA Forecast Systems Laboratory, Boulder, CO, USA	Operational
60	060	60 United States National Center for Atmospheric Research (NCAR)	Operational
61	061	61 Service ARGOS - Landover	Operational
62	062	62 US Naval Oceanographic Office	Operational
63	063	63 International Research Institute for Climate and Society (IRI)	Operational
		64-73: Centres in Region V	Operational
64	064	64 Honolulu (RSMC)	Operational
65	065	65 Darwin (RSMC)	Operational
66	066	66 )	Operational
67	067	67 Melbourne (RSMC)	Operational
68	068	68 Reserved	Operational
69	069	69 Wellington (RSMC)	Operational
70	070	70 )	Operational
71	071	71 Nadi (RSMC)	Operational
72	072	72 Singapore	Operational
73	073	73 Malaysia (NMC)	Operational

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3	Status
		74-99: Centres in Region VI	Operational
74	074	74 UK Meteorological Office - Exeter (RSMC)	Operational
75	075	75 )	Operational
76	076	76 Moscow (RSMC)	Operational
77	077	77 Reserved	Operational
78	078	78 Offenbach (RSMC)	Operational
79	079	79 )	Operational
80	080	80 Rome (RSMC)	Operational
81	081	81 )	Operational
82	082	82 Norrköping	Operational
83	083	83 )	Operational
84	084	84 Toulouse (RSMC)	Operational
85	085	85 Toulouse (RSMC)	Operational
86	086	86 Helsinki	Operational
87	087	87 Belgrade	Operational
88	088	88 Oslo	Operational
89	089	89 Prague	Operational
90	090	90 Episkopi	Operational
91	091	91 Ankara	Operational
92	092	92 Frankfurt/Main	Operational
93	093	93 London (WAFB)	Operational
94	094	94 Copenhagen	Operational
95	095	95 Rota	Operational
96	096	96 Athens	Operational
97	097	97 European Space Agency (ESA)	Operational
98	098	98 European Centre for Medium-Range Weather Forecasts (ECMWF) (RSMC)	Operational
99	099	99 De Bilt	Operational
		Additional Centres	Operational
Not applicable	100	100 Brazzaville	Operational
Not applicable	101	101 Abidjan	Operational
Not applicable	102	102 Libyan Arab Jamahiriya (NMC)	Operational
Not applicable	103	103 Madagascar (NMC)	Operational
Not applicable	104	104 Mauritius (NMC)	Operational
Not applicable	105	105 Niger (NMC)	Operational
Not applicable	106	106 Seychelles (NMC)	Operational
Not applicable	107	107 Uganda (NMC)	Operational
Not applicable	108	108 Tanzania (NMC)	Operational
Not applicable	109	109 Zimbabwe (NMC)	Operational
Not applicable	110	110 Hong-Kong, China	Operational
Not applicable	111	111 Afghanistan (NMC)	Operational
Not applicable	112	112 Bahrain (NMC)	Operational
Not applicable	113	113 Bangladesh (NMC)	Operational
Not applicable	114	114 Bhutan (NMC)	Operational
Not applicable	115	115 Cambodia (NMC)	Operational

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3	Status
Not applicable	116	116 Democratic People's Republic of Korea (NMC)	Operational
Not applicable	117	117 Islamic Republic of Iran (NMC)	Operational
Not applicable	118	118 Iraq (NMC)	Operational
Not applicable	119	119 Kazakhstan (NMC)	Operational
Not applicable	120	120 Kuwait (NMC)	Operational
Not applicable	121	121 Kyrgyz Republic (NMC)	Operational
Not applicable	122	122 Lao People's Democratic Republic (NMC)	Operational
Not applicable	123	123 Macao, China	Operational
Not applicable	124	124 Maldives (NMC)	Operational
Not applicable	125	125 Myanmar (NMC)	Operational
Not applicable	126	126 Nepal (NMC)	Operational
Not applicable	127	127 Oman (NMC)	Operational
Not applicable	128	128 Pakistan (NMC)	Operational
Not applicable	129	129 Qatar (NMC)	Operational
Not applicable	130	130 Republic of Yemen (NMC)	Operational
Not applicable	131	131 Sri Lanka (NMC)	Operational
Not applicable	132	132 Tajikistan (NMC)	Operational
Not applicable	133	133 Turkmenistan (NMC)	Operational
Not applicable	134	134 United Arab Emirates (NMC)	Operational
Not applicable	135	135 Uzbekistan (NMC)	Operational
Not applicable	136	136 Socialist Republic of Viet Nam (NMC)	Operational
Not applicable	137-139	137-139 Reserved for other centres	Operational
Not applicable	140	140 Bolivia (NMC)	Operational
Not applicable	141	141 Guyana (NMC)	Operational
Not applicable	142	142 Paraguay (NMC)	Operational
Not applicable	143	143 Suriname (NMC)	Operational
Not applicable	144	144 Uruguay (NMC)	Operational
Not applicable	145	145 French Guyana	Operational
Not applicable	146	146 Brazilian Navy Hydrographic Centre	Operational
Not applicable	147	147 COMision Nacional de Actividades Espaciales (CONAE) - Argentina	Operational
Not applicable	148-149	148-149 Reserved for other centres	Operational
Not applicable	150	150 Antigua and Barbuda (NMC)	Operational
Not applicable	151	151 Bahamas (NMC)	Operational
Not applicable	152	152 Barbados (NMC)	Operational
Not applicable	153	153 Belize (NMC)	Operational
Not applicable	154	154 British Caribbean Territories Centre	Operational
Not applicable	155	155 San Jose	Operational
Not applicable	156	156 Cuba (NMC)	Operational
Not applicable	157	157 Dominica (NMC)	Operational
Not applicable	158	158 Dominican Republic (NMC)	Operational
Not applicable	159	159 El Salvador (NMC)	Operational
Not applicable	160	160 US NOAA/NESDIS	Operational
Not applicable	161	161 US NOAA Office of Oceanic and Atmospheric	Operational
Not applicable	162	162 Guatemala (NMC)	Operational

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3	Status	
Not applicable	163	163	Haiti (NMC)	Operational
Not applicable	164	164	Honduras (NMC)	Operational
Not applicable	165	165	Jamaica (NMC)	Operational
Not applicable	166	166	Mexico City	Operational
Not applicable	167	167	Netherlands Antilles and Aruba (NMC)	Operational
Not applicable	168	168	Nicaragua (NMC)	Operational
Not applicable	169	169	Panama (NMC)	Operational
Not applicable	170	170	Saint Lucia (NMC)	Operational
Not applicable	171	171	Trinidad and Tobago (NMC)	Operational
Not applicable	172	172	French Departments in RA IV	Operational
Not applicable	173	173	US National Aeronautics and Space Administration (NASA)	Operational
Not applicable	174	174	Integrated System Data Management/Marine Environmental Data Service (ISDM/MEDS - Canada)	Operational
Not applicable	175	175	Reserved for other centres	Operational
Not applicable	176	176	U.S. Cooperative Institute for Meteorological Satellite Studies (CIMSS)	Operational
Not applicable	177-189	177-189	Reserved for other centres	Operational
Not applicable	190	190	Cook Islands (NMC)	Operational
Not applicable	191	191	French Polynesia (NMC)	Operational
Not applicable	192	192	Tonga (NMC)	Operational
Not applicable	193	193	Vanuatu (NMC)	Operational
Not applicable	194	194	Brunei Darussalam (NMC)	Operational
Not applicable	195	195	Indonesia (NMC)	Operational
Not applicable	196	196	Kiribati (NMC)	Operational
Not applicable	197	197	Federated States of Micronesia (NMC)	Operational
Not applicable	198	198	New Caledonia (NMC)	Operational
Not applicable	199	199	Niue	Operational
Not applicable	200	200	Papua New Guinea (NMC)	Operational
Not applicable	201	201	Philippines (NMC)	Operational
Not applicable	202	202	Samoa (NMC)	Operational
Not applicable	203	203	Solomon Islands (NMC)	Operational
Not applicable	204	204	National Institute of Water and Atmospheric Research (NIWA - New Zealand)	Operational
Not applicable	205-209	205-209	Reserved	Operational
Not applicable	210	210	Frascati (ESA/ESRIN)	Operational
Not applicable	211	211	Lannion	Operational
Not applicable	212	212	Lisbon	Operational
Not applicable	213	213	Reykjavik	Operational
Not applicable	214	214	Madrid	Operational
Not applicable	215	215	Zurich	Operational
Not applicable	216	216	Service ARGOS - Toulouse	Operational
Not applicable	217	217	Bratislava	Operational
Not applicable	218	218	Budapest	Operational
Not applicable	219	219	Ljubljana	Operational
Not applicable	220	220	Warsaw	Operational

Code figure for F <sub>1</sub> F <sub>2</sub>	Code figure for F <sub>3</sub> F <sub>3</sub> F <sub>3</sub>	Octet 5 in Section 1 of GRIB Edition 1 Octet 6 in Section 1 of BUFR Edition 3		Status
Not applicable	221	221	Zagreb	Operational
Not applicable	222	222	Albania (NMC)	Operational
Not applicable	223	223	Armenia (NMC)	Operational
Not applicable	224	224	Austria (NMC)	Operational
Not applicable	225	225	Azerbaijan (NMC)	Operational
Not applicable	226	226	Belarus (NMC)	Operational
Not applicable	227	227	Belgium (NMC)	Operational
Not applicable	228	228	Bosnia and Herzegovina (NMC)	Operational
Not applicable	229	229	Bulgaria (NMC)	Operational
Not applicable	230	230	Cyprus (NMC)	Operational
Not applicable	231	231	Estonia (NMC)	Operational
Not applicable	232	232	Georgia (NMC)	Operational
Not applicable	233	233	Dublin	Operational
Not applicable	234	234	Israel (NMC)	Operational
Not applicable	235	235	Jordan (NMC)	Operational
Not applicable	236	236	Latvia (NMC)	Operational
Not applicable	237	237	Lebanon (NMC)	Operational
Not applicable	238	238	Lithuania (NMC)	Operational
Not applicable	239	239	Luxembourg	Operational
Not applicable	240	240	Malta (NMC)	Operational
Not applicable	241	241	Monaco	Operational
Not applicable	242	242	Romania (NMC)	Operational
Not applicable	243	243	Syrian Arab Republic (NMC)	Operational
Not applicable	244	244	The former Yugoslav Republic of Macedonia (NMC)	Operational
Not applicable	245	245	Ukraine (NMC)	Operational
Not applicable	246	246	Republic of Moldova (NMC)	Operational
Not applicable	247	247	Operational Programme for the Exchange of weather RADar information (OPERA) - EUMETNET	Operational
Not applicable	248-249	248-249	Reserved for other centres	Operational
Not applicable	250	250	CONsortium for Small scale MOdelling (COSMO)	Operational
Not applicable	251-253	251-253	Reserved for other centres	Operational
Not applicable	254	254	EUMETSAT Operation Centre	Operational
Not applicable	255	255	Missing value	Operational
Not applicable	256-999	Not	Not used	Operational

Notes:

- (1) The closed bracket sign ) indicates that the corresponding code figure is reserved for the previously named centre.
- (2) With GRIB or BUFR, to indicate whether the originating/generating centre is a sub-centre or not, the following procedure should be applied: Use in GRIB Edition 1 of Octet 26, Section 1, or use in BUFR Edition 3 of Octet 5, Section 1 with the following meaning:
 

Code figure	
0	Not a sub-centre, the originating/generating centre is the centre defined by Octet 5, Section 1 of GRIB Edition 1 or Octet 6, Section 1 of BUFR edition 3.
1 to 254	Identifier of the sub centre which is the originating/generating centre. The identifier of the sub-centre is allocated by the associated centre, which is defined by octet 5, Section 1 of GRIB Edition 1 or octet 6, Section 1 of BUFR Edition 3. The sub-centre(s) identifiers should be supplied to the WMO Secretariat by the associated centre(s) for publication.
- (3) For Sub-centres definition provided to the WMO Secretariat, see Common table C-12.



## COMMON CODE TABLE C-2: Radiosonde/sounding system used

Common Code table { Code table 3685 -  $r_a$   $r_a$  (Radiosonde/sounding system used) - for alphanumeric codes  
Code table 0 02 011 (Radiosonde type) in BUFR

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)		Status
Not applicable	00	0	Reserved	Operational
Before	01	1	iMet-1-BB (USA)	Operational
Not applicable	02	2	No radiosonde - passive target (e.g.	Operational
Not applicable	03	3	No radiosonde - active target (e.g. transponder)	Operational
Not applicable	04	4	No radiosonde - passive temperature-humidity profiler	Operational
Not applicable	05	5	No radiosonde - active temperature-humidity profiler	Operational
Not applicable	06	6	No radiosonde - radio acoustic sounder	Operational
Before	07	7	iMet-1-AB (USA)	Operational
Not applicable	08	8	No radiosonde -...(reserved)	Operational
Not applicable	09	9	No radiosonde - system unknown or not specified	Operational
Before	10	10	VIZ type A pressure-commutated (USA)	Operational
Before	11	11	VIZ type B time-commutated (USA)	Operational
Before	12	12	RS SDC (Space Data Corporation - USA)	Operational
Before	13	13	Astor (no longer made - Australia)	Operational
Before	14	14	VIZ MARK I MICROSONDE (USA)	Operational
Before	15	15	EEC Company type 23 (USA)	Operational
Before	16	16	Elin (Austria)	Operational
Before	17	17	Graw G. (Germany)	Operational
Before	18	18	Graw DFM-06 (Germany)	Operational
Before	19	19	Graw M60 (Germany)	Operational
Before	20	20	Indian Meteorological Service MK3 (India)	Operational
Before	21	21	VIZ/Jin Yang MARK I MICROSONDE (Republic of Korea)	Operational
Before	22	22	Meisei RS2-80 (Japan)	Operational
Before	23	23	Mesural FMO 1950A (France)	Operational
Before	24	24	Mesural FMO 1945A (France)	Operational
Before	25	25	Mesural MH73A (France)	Operational
Before	26	26	Meteolabor Basora (Switzerland)	Operational
Before	27	27	AVK MRZ (Russian Federation)	Operational
Before	28	28	Meteorit MARZ2-1 (Russian Federation)	Operational
Before	29	29	Meteorit MARZ2-2 (Russian Federation)	Operational
Before	30	30	Oki RS2-80 (Japan)	Operational
Before	31	31	VIZ/Valcom type A pressure-commutated (Canada)	Operational
Before	32	32	Shanghai Radio (China)	Operational
Before	33	33	UK Met Office MK3 (UK)	Operational

Date of assignment of number (necessary after 30/06/2007)	Code figure for r <sub>a</sub> r <sub>a</sub> (Code table 3685)	Code figure for BUFR (Code table 0 02 011)	Status
Before	34	34	Vinohrady (Czech Republic)
Before	35	35	Vaisala RS18 (Finland)
Before	36	36	Vaisala RS21 (Finland)
Before	37	37	Vaisala RS80 (Finland)
Before	38	38	VIZ LOCATE Loran-C (USA)
Before	39	39	Sprenger E076 (Germany)
Before	40	40	Sprenger E084 (Germany)
Before	41	41	Sprenger E085 (Germany)
Before	42	42	Sprenger E086 (Germany)
Before	43	43	AIR IS - 4A - 1680 (USA)
Before	44	44	AIR IS - 4A - 1680 X (USA)
Before	45	45	RS MSS (USA)
Before	46	46	Air IS - 4A - 403 (USA)
Before	47	47	Meisei RS2-91 (Japan)
Before	48	48	VALCOM (Canada)
Before	49	49	VIZ MARK II (USA)
Before	50	50	Graw DFM-90 (Germany)
Before	51	51	VIZ-B2 (USA)
Before	52	52	Vaisala RS80-57H
Before	53	53	AVK-RF95 (Russian Federation)
Before	54	54	Graw DFM-97 (Germany)
Before	55	55	Meisei RS-016 (Japan)
Before	56	56	M2K2 (France)
Before	57	57	Modem M2K2-DC (France)
Before	58	58	AVK BAR (Russian Federation)
Before	59	59	Modem M2K2 R 1680 MHz RDF radiosonde with pressure sensor chip (France)
Before	60	60	Vaisala RS80/MicroCora (Finland)
Before	61	61	Vaisala RS80/Loran/Digicora I,II or Marwin (Finland)
Before	62	62	Vaisala RS80/PCCora (Finland)
Before	63	63	Vaisala RS80/Star (Finland)
Before	64	64	Orbital Sciences Corporation, Space Data Division, transponder radiosonde, type 909 11-XX, where XX corresponds to the model of the instrument (USA)
Before	65	65	VIZ transponder radiosonde, model number 1499–520 (USA)
Before	66	66	Vaisala RS80 /Autosonde (Finland)
Before	67	67	Vaisala RS80/Digicora III (Finland)
Before	68	68	AVK RZM-2 (Russian Federation)
Before	69	69	MARL-A or Vektor-M-RZM-2 (Russian Federation)
Before	70	70	Vaisala RS92/Star (Finland)

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)		Status
Before	71	71	Vaisala RS90/Loran/Digicora I,II or Marwin (Finland)	Operational
Before	72	72	Vaisala RS90/PC-Cora (Finland)	Operational
Before	73	73	Vaisala RS90/Autosonde (Finland)	Operational
Before	74	74	Vaisala RS90/Star (Finland)	Operational
Before	75	75	AVK-MRZ-ARMA (Russian Federation)	Operational
Before	76	76	AVK-RF95-ARMA (Russian Federation)	Operational
Before	77	77	GEOLINK GPSonde GL98 (France)	Operational
Before	78	78	Vaisala RS90/Digicora III (Finland)	Operational
Before	79	79	Vaisala RS92/Digicora I,II or Marwin	Operational
Before	80	80	Vaisala RS92/Digicora III (Finland)	Operational
Before	81	81	Vaisala RS92/Autosonde (Finland)	Operational
Before	82	82	Sippican MK2 GPS/STAR (USA) with rod thermistor, carbon element and derived pressure	Operational
Before	83	83	Sippican MK2 GPS/W9000 (USA) with rod thermistor, carbon element and derived pressure	Operational
Before	84	84	Sippican MARK II with chip thermistor, carbon element and derived pressure from GPS height	Operational
Before	85	85	Sippican MARK IIA with chip thermistor, carbon element and derived pressure from GPS height	Operational
Before	86	86	Sippican MARK II with chip thermistor, pressure and carbon element	Operational
Before	87	87	Sippican MARK IIA with chip thermistor, pressure and carbon element	Operational
Before	88	88	MARL-A or Vektor-M-MRZ (Russian Federation)	Operational
Before	89	89	MARL-A or Vektor-M-BAR (Russian Federation)	Operational
Not applicable	90	90	Radiosonde not specified or unknown	Operational
Not applicable	91	91	Pressure only radiosonde	Operational
Not applicable	92	92	Pressure only radiosonde plus transponder	Operational
Not applicable	93	93	Pressure only radiosonde plus radar	Operational
Not applicable	94	94	No pressure radiosonde plus transponder	Operational
Not applicable	95	95	No pressure radiosonde plus radar reflector	Operational
Not applicable	96	96	Descending radiosonde	Operational
Before	97	97	BAT-16P (South Africa)	Operational
Before	98	98	BAT-16G (South Africa)	Operational
Before	99	99	BAT-4G (South Africa)	Operational
	Not available	100	Reserved for BUFR only	Operational
	01	101	Not vacant	Operational
	Not available	102-106	Reserved for BUFR only	Operational
	07	107	Not vacant	Operational
	Not available	108-109	Reserved for BUFR only	Operational

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)		Status
01/01/2008	10	110	Sippican LMS5 w/Chip Thermistor, duct mounted capacitance relative humidity sensor and derived pressure from GPS height	Operational
01/01/2008	11	111	Sippican LMS6 w/Chip Thermistor, external boom mounted capacitance relative humidity sensor, and derived pressure from GPS height	Operational
	12	112	Not vacant	Operational
15/09/2010	13	113	Vaisala RS92/MARWIN MW32 (Finland)	Operational
Needed	14-16	114-116	Vacant	Operational
	17-22	117-122	Not vacant	Operational
Needed	23-25	123-125	Vacant	Operational
	26-29	126-129	Not vacant	Operational
01/01/2010	30	130	Meisei RS06G (Japan)	Operational
Needed	31	131	Vacant	Operational
	32	132	Not vacant	Operational
Needed	33-35	133-135	Vacant	Operational
	36-37	136-137	Not vacant	Operational
Needed	38-46	138-146	Vacant	Operational
	47	147	Not vacant	Operational
Needed	48	148	Vacant	Operational
	49-63	149-163	Not vacant	Operational
Needed	64-65	164-165	Vacant	Operational
	66-76	166-176	Not vacant	Operational
15/03/2010	77	177	Modem GPSonde M10 (France)	Operational
	78-89	177-189	Not vacant	Operational
	Not available	190-196	Reserved for BUFR only	Operational
	97-99	197-199	Not vacant	Operational
	Not available	200-254	Reserved for BUFR only	Operational
		255	Missing value	Operational

Notes:

- (1) References to countries in brackets indicate the manufacturing location rather than the country using the instrument.
- (2) Some of the radiosondes listed are no longer in use but are retained for archiving purposes.
- (3) The alphanumeric code format reports only 2 digits, and the first digit for BUFR is identified from the date: the first digit is 0 if the introduction of the radiosonde for observation was before the date of 30/06/2007, or 1 otherwise. Entries in the second part of the table (after 99), which are declared "Vacant" can be used for new radiosondes because the 2 digits number was originally attributed to sondes, which are no longer used. This system has been adopted to accommodate reporting in TEMP Traditional Alphanumeric Code format up to the time BUFR is fully used for radiosonding reports.

**COMMON CODE TABLE C-3: *Instrument make and type for water temperature profile measurement with fall rate equation coefficients***

Common Code table { Code table 1770 - I<sub>x</sub> I<sub>x</sub> I<sub>x</sub> (Instrument type for XBT, with fall rate equation coefficients)  
- for alphanumeric codes  
Code table 0 22 067 (Instrument type for water temperature profile measurement) in BUFR

Code figure for I <sub>x</sub> I <sub>x</sub> I <sub>x</sub>	Code figure for BUFR (Code table 0 22 067)	Instrument make and type	Meaning	Equation Coefficients		Status
				a	b	
001	1	Sippican T-4		6.472	-2.16	Operational
002	2	Sippican T-4		6.691	-2.25	Operational
011	11	Sippican T-5		6.828	-1.82	Operational
021	21	Sippican Fast Deep		6.346	-1.82	Operational
031	31	Sippican T-6		6.472	-2.16	Operational
032	32	Sippican T-6		6.691	-2.25	Operational
041	41	Sippican T-7		6.472	-2.16	Operational
042	42	Sippican T-7		6.691	-2.25	Operational
051	51	Sippican Deep Blue		6.472	-2.16	Operational
052	52	Sippican Deep Blue		6.691	-2.25	Operational
061	61	Sippican T-10		6.301	-2.16	Operational
071	71	Sippican T-11		1.779	-0.255	Operational
081	81	Sippican AXBT (300 m probes)		1.52	0.0	Operational
201	201	TSK T-4		6.472	-2.16	Operational
202	202	TSK T-4		6.691	-2.25	Operational
211	211	TSK T-6		6.472	-2.16	Operational
212	212	TSK T-6		6.691	-2.25	Operational
221	221	TSK T-7		6.472	-2.16	Operational
222	222	TSK T-7		6.691	-2.25	Operational
231	231	TSK T-5		6.828	-1.82	Operational
241	241	TSK T-10		6.301	-2.16	Operational
251	251	TSK Deep Blue		6.472	-2.16	Operational
252	252	TSK Deep Blue		6.691	-2.25	Operational
261	261	TSK AXBT				Operational
401	401	Sparton XBT-1		6.301	-2.16	Operational
411	411	Sparton XBT-3		5.861	-0.0904	Operational
421	421	Sparton XBT-4		6.472	-2.16	Operational
431	431	Sparton XBT-5		6.828	-1.82	Operational
441	441	Sparton XBT-5DB		6.828	-1.82	Operational
451	451	Sparton XBT-6		6.472	-2.16	Operational
461	461	Sparton XBT-7		6.472	-2.16	Operational
462	462	Sparton XBT-7		6.705	-2.28	Operational
471	471	Sparton XBT-7DB		6.472	-2.16	Operational
481	481	Sparton XBT-10		6.301	-2.16	Operational
491	491	Sparton XBT-20		6.472	-2.16	Operational
501	501	Sparton XBT-20DB		6.472	-2.16	Operational
510	510	Sparton 536 AXBT		1.524	0	Operational

Code figure for I <sub>x</sub> I <sub>x</sub> I <sub>x</sub>	Code figure for BUFR (Code table 0 22 067)	Instrument make and type	Meaning	Equation Coefficients a	b	Status
700	700	Sippican XCTD Standard				Operational
710	710	Sippican XCTD Deep				Operational
720	720	Sippican AXCTD				Operational
730	730	Sippican SXCTD				Operational
741	741	TSK XCTD		3.42543	-0.47	Operational
742	742	TSK XCTD-2				Operational
743	743	TSK XCTD-2F				Operational
751	751	TSK AXCTD				Operational
780	780	Sea-Bird SBE21 SEACAT Thermosalinograph		Not applicable	Not	Operational
781	781	Sea-Bird SBE45 MicroTSG Thermosalinograph		Not applicable	Not	Operational
800	800	Mechanical BT		Not applicable	Not	Operational
810	810	Hydrocast		Not applicable	Not	Operational
820	820	Thermistor chain		Not applicable	Not	Operational
825	825	Temperature (sonic) and pressure probes		Not applicable	Not	Operational
830	830	CTD		Not applicable	Not	Operational
831	831	CTD-P-ALACE float		Not applicable	Not	Operational
840	840	PROVOR, no conductivity sensor		Not applicable	Not	Operational
841	841	PROVOR, Sea-Bird conductivity sensor		Not applicable	Not	Operational
842	842	PROVOR, FSI conductivity sensor		Not applicable	Not	Operational
843	843	Polar Ocean Profiling System (POPS), PROVOR, SBE CTD				Operational
844	844	Profiling Float, ARVOR, Seabird conductivity sensor				Operational
845	845	Webb Research, no conductivity sensor		Not applicable	Not	Operational
846	846	Webb Research, Sea-Bird conductivity sensor		Not applicable	Not	Operational
847	847	Webb Research, FSI conductivity		Not applicable	Not	Operational
850	850	SOLO, no conductivity sensor		Not applicable	Not	Operational
851	851	SOLO, Sea-Bird conductivity sensor		Not applicable	Not	Operational
852	852	SOLO, FSI conductivity sensor		Not applicable	Not	Operational
853	853	Profiling Float, SOLO2 (SCRIPPS), Seabird conductivity sensor				Operational
854	854	Reserved				Operational
855	855	Profiling Float, NINJA, no conductivity sensor		Not applicable	Not	Operational
856	856	Profiling Float, NINJA, SBE conductivity sensor		Not applicable	Not	Operational
857	857	Profiling Float, NINJA, FSI conductivity sensor		Not applicable	Not	Operational
858	858	Profiling Float, NINJA, TSK conductivity sensor		Not applicable	Not	Operational
859	859	Profiling Float, NEMO, no conductivity		Not applicable	Not	Operational
860	860	Profiling Float, NEMO, SBE conductivity sensor		Not applicable	Not	Operational

Code figure for I <sub>x</sub> I <sub>x</sub> I <sub>x</sub>	Code figure for BUFR (Code table 0 22 067)	Instrument make and type	Meaning		Equation Coefficients a	b	Status
861	861	Profiling Float, NEMO, FSI conductivity sensor	Not applicable		Not applicable	Not	Operational
862-899	862-899	Reserved					Operational
900	900	Sippican LMP-5 XBT	9.727		0.0000473		Operational
901	901	Ice-tethered Profiler (ITP), SBE CTD					Operational
902-994	902-994	Reserved					Operational
995	995	Instrument attached to marine mammals	Not applicable		Not applicable	Not	Operational
996	996	Instrument attached to animals other than marine mammals	Not applicable		Not applicable	Not	Operational
997-999	997-999	Reserved					Operational
	1000-1022	Reserved					Operational
	1023	Missing value					Operational

Notes:

- (1) The depth is calculated from coefficients a and b and the time t as follows:  

$$z = at + 10^{-3} b t^2$$
- (2) All unassigned numbers are reserved for future use.
- (3) The values of a and b are supplied for information only.

# COMMON CODE TABLE C-4: *Water temperature profile recorder types*

Common Code table { Code table 4770 - X<sub>R</sub> X<sub>R</sub> (Recorder type) - for alphanumeric codes  
Code table 0 22 068 (Water temperature profile recorder types) in BUFR

Code figure for X <sub>R</sub> X <sub>R</sub>	Code figure for BUFR (Code table 0 22 068)	Meaning	Status
01	1	Sippican Strip Chart Recorder	Operational
02	2	Sippican MK2A/SSQ- 61	Operational
03	3	Sippican MK- 9	Operational
04	4	Sippican AN/BHQ- 7/MK8	Operational
05	5	Sippican MK- 12	Operational
06	6	Sippican MK-21	Operational
08	8	Sippican MK-10	Operational
10	10	Sparton SOC BT/SV Processor Model 100	Operational
11	11	Lockheed-Sanders Model OL5005	Operational
20	20	ARGOS XBT- ST	Operational
21	21	CLS- ARGOS/Protecno XBT- ST Model- 1	Operational
22	22	CLS- ARGOS/Protecno XBT- ST Model- 2	Operational
30	30	BATHY Systems SA- 810	Operational
31	31	Scripps Metrobyte Controller	Operational
32	32	Murayama Denki Z- 60- 16 III	Operational
33	33	Murayama Denki Z- 60- 16 II	Operational
34	34	Protecno ETSM2	Operational
35	35	Nautilus Marine Service NMS- XBT	Operational
40	40	TSK MK- 2A	Operational
41	41	TSK MK- 2S	Operational
42	42	TSK MK- 30	Operational
43	43	TSK MK- 30N	Operational
45	45	TSK MK-100	Operational
46	46	TSK MK-130 Compatible recorder for both XBT and XCTD	Operational
47	47	TSK MK-130 AXCTD recorder	Operational
48	48	TSK AXBT RECEIVER MK-300	Operational
50	50	JMA ASTOS	Operational
60	60	ARGOS communications, sampling on up transit	Operational
61	61	ARGOS communications, sampling on down transit	Operational
62	62	Orbcomm communications, sampling on up transit	Operational
63	63	Orbcomm communications, sampling on down transit	Operational
64	64	Iridium communications, sampling on up transit	Operational
65	65	Iridium communications, sampling on down transit	Operational
70	70	CSIRO Devil-1 XBT acquisition system	Operational
71	71	CSIRO Devil-2 XBT acquisition system	Operational
80	80	Applied Microsystems Ltd., MICRO-SVT&P	Operational
81	81	Sea Mammal Research Unit, Univ. St. Andrews, UK, uncorrected	Operational
82	82	Sea Mammal Research Unit, Univ. St. Andrews, UK, corrected	Operational
99	99	Unknown	Operational
	127	Missing value	Operational

Note: All unassigned numbers are reserved for future use.



## COMMON CODE TABLE C-5: *Satellite identifier*

Common Code table  $\left\{ \begin{array}{l} I_6 I_6 I_6 \text{ for alphanumeric codes} \\ \text{Code table 0 01 007 in BUFR} \\ \text{Code used in GRIB Edition 2} \end{array} \right.$

(Even deciles indicate polar-orbiting satellites and odd deciles indicate geostationary satellites)

Code figure for $I_6 I_6 I_6$	Code figure for BUFR (Code table 0 01 007)	Code figure for GRIB Edition 2		Status
000	0	0	Reserved	Operational
			001-099: Numbers allocated to Europe	Operational
001	1	1	ERS 1	Operational
002	2	2	ERS 2	Operational
003	3	3	METOP-1	Operational
004	4	4	METOP-2	Operational
005	5	5	METOP-3	Operational
020	20	20	SPOT1	Operational
021	21	21	SPOT2	Operational
022	22	22	SPOT3	Operational
023	23	23	SPOT4	Operational
040	40	40	OERSTED	Operational
041	41	41	CHAMP	Operational
042	42	42	TerraSAR-X	Operational
046	46	46	SMOS	Operational
050	50	50	METEOSAT 3	Operational
051	51	51	METEOSAT 4	Operational
052	52	52	METEOSAT 5	Operational
053	53	53	METEOSAT 6	Operational
054	54	54	METEOSAT 7	Operational
055	55	55	METEOSAT 8	Operational
056	56	56	METEOSAT 9	Operational
057	57	57	METEOSAT 10	Operational
058	58	58	METEOSAT 1	Operational
059	59	59	METEOSAT 2	Operational
060	60	60	ENVISAT	Operational
070	70	70	METEOSAT 11	Operational
			100-199: Numbers allocated to Japan	Operational
120	120	120	ADEOS	Operational
121	121	121	ADEOS II	Operational
140	140	140	GOSAT	Operational
150	150	150	GMS 3	Operational

Code figure for I <sub>6</sub> I <sub>6</sub> I <sub>6</sub>	Code figure for BUFR (Code table 0 01 007)	Code figure for GRIB Edition 2		Status
151	151	151	GMS 4	Operational
152	152	152	GMS 5	Operational
171	171	171	MTSAT-1R	Operational
172	172	172	MTSAT-2	Operational
			200-299: Numbers allocated to USA	Operational
200	200	200	NOAA 8	Operational
201	201	201	NOAA 9	Operational
202	202	202	NOAA 10	Operational
203	203	203	NOAA 11	Operational
204	204	204	NOAA 12	Operational
205	205	205	NOAA 14	Operational
206	206	206	NOAA 15	Operational
207	207	207	NOAA 16	Operational
208	208	208	NOAA 17	Operational
209	209	209	NOAA 18	Operational
220	220	220	LANDSAT 5	Operational
221	221	221	LANDSAT 4	Operational
222	222	222	LANDSAT 7	Operational
223	223	223	NOAA 19	Operational
224	224	224	NPP	Operational
240	240	240	DMSP 7	Operational
241	241	241	DMSP 8	Operational
242	242	242	DMSP 9	Operational
243	243	243	DMSP 10	Operational
244	244	244	DMSP 11	Operational
245	245	245	DMSP 12	Operational
246	246	246	DMSP 13	Operational
247	247	247	DMSP 14	Operational
248	248	248	DMSP 15	Operational
249	249	249	DMSP 16	Operational
250	250	250	GOES 6	Operational
251	251	251	GOES 7	Operational
252	252	252	GOES 8	Operational
253	253	253	GOES 9	Operational
254	254	254	GOES 10	Operational
255	255	255	GOES 11	Operational

Code figure for I <sub>6</sub> I <sub>6</sub> I <sub>6</sub>	Code figure for BUFR (Code table 0 01 007)	Code figure for GRIB Edition 2		Status
256	256	256	GOES 12	Operational
257	257	257	GOES 13	Operational
258	258	258	GOES 14	Operational
259	259	259	GOES 15	Operational
260	260	260	JASON 1	Operational
261	261	261	JASON 2	Operational
281	281	281	QUIKSCAT	Operational
282	282	282	TRMM	Operational
283	283	283	CORIOLIS	Operational
285	285	285	DMSP17	Operational
286	286	286	DMSP18	Operational
			300-399: Numbers allocated to Russian Federation	Operational
310	310	310	GOMS 1	Operational
311	311	311	GOMS 2	Operational
320	320	320	METEOR 2-21	Operational
321	321	321	METEOR 3-5	Operational
322	322	322	METEOR 3M-1	Operational
323	323	323	METEOR 3M-2	Operational
341	341	341	RESURS 01-4	Operational
			400-499: Numbers allocated to India	Operational
410	410	410	KALPANA-1	Operational
430	430	430	INSAT 1B	Operational
431	431	431	INSAT 1C	Operational
432	432	432	INSAT 1D	Operational
441	441	441	SARAL	Operational
450	450	450	INSAT 2A	Operational
451	451	451	INSAT 2B	Operational
452	452	452	INSAT 2E	Operational
470	470	470	INSAT 3A	Operational
471	471	471	INSAT 3D	Operational
472	472	472	INSAT 3E	Operational
			500-599: Numbers allocated to China	Operational
500	500	500	FY-1C	Operational
501	501	501	FY-1D	Operational
510	510	510	FY-2	Operational
512	512	512	FY-2B	Operational
513	513	513	FY-2C	Operational

Code figure for I <sub>6</sub> I <sub>6</sub> I <sub>6</sub>	Code figure for BUFR (Code table 0 01 007)	Code figure for GRIB Edition 2	Status
514	514	514	FY-2D Operational
520	520	520	FY-3A Operational
			600-699: Numbers allocated to Europe Operational
			700-799: Numbers allocated to USA Operational
700	700	700	TIROS M (ITOS 1) Operational
701	701	701	NOAA 1 Operational
702	702	702	NOAA 2 Operational
703	703	703	NOAA 3 Operational
704	704	704	NOAA 4 Operational
705	705	705	NOAA 5 Operational
706	706	706	NOAA 6 Operational
707	707	707	NOAA 7 Operational
708	708	708	TIROS-N Operational
710	710	710	GOES (SMS 1) Operational
711	711	711	GOES (SMS 2) Operational
720	720	720	TOPEX Operational
721	721	721	GFO (GEOSAT follow on) Operational
722	722	722	GRACE A Operational
723	723	723	GRACE B Operational
731	731	731	GOES 1 Operational
732	732	732	GOES 2 Operational
733	733	733	GOES 3 Operational
734	734	734	GOES 4 Operational
735	735	735	GOES 5 Operational
740	740	740	COSMIC-1 Operational
741	741	741	COSMIC-2 Operational
742	742	742	COSMIC-3 Operational
743	743	743	COSMIC-4 Operational
744	744	744	COSMIC-5 Operational
745	745	745	COSMIC-6 Operational
763	763	763	NIMBUS 3 Operational
764	764	764	NIMBUS 4 Operational
765	765	765	NIMBUS 5 Operational
766	766	766	NIMBUS 6 Operational
767	767	767	NIMBUS 7 Operational
780	780	780	ERBS Operational

Code figure for I <sub>6</sub> I <sub>6</sub> I <sub>6</sub>	Code figure for BUFR (Code table 0 01 007)	Code figure for GRIB Edition 2		Status
781	781	781	UARS	Operational
782	782	782	EARTH PROBE	Operational
783	783	783	TERRA	Operational
784	784	784	AQUA	Operational
785	785	785	AURA	Operational
			800-849 Numbers allocated to other satellite operators	Operational
800	800	800	SUNSAT	Operational
820	820	820	SAC-C	Operational
850-998	850-998	850-998	Reserved	Operational
999 Missing	999-1022	999-65534	Reserved	Operational
	1023	65535	Missing value	Operational

**COMMON CODE TABLE C-6: List of units for *TDCF*s**

Code figure		Conventional abbreviation	Abbreviation in IA5/ASCII (5)	Abbreviation in IA2 (5)	Definition in base units (2)
Base SI units (1)					
001	metre	m	m	M	
002	kilogram	kg	kg	KG	
003	second	s	s	S	
004	ampere	A	A	A	
005	kelvin	K	K	K	
006	mole	mol	mol	MOL	
007	candela	cd	cd	CD	
Supplementary SI Units (1)					
021	radian	rad	rad	RAD	
022	steradian	sr	sr	SR	
Derived SI Units with special names (1)					
030	hertz	Hz	Hz	HZ	$s^{-1}$
031	newton	N	N	N	$kg\ m\ s^{-2}$
032	pascal	Pa	Pa	PAL	$kg\ m^{-1}\ s^{-2}$
033	joule	J	J	J	$kg\ m^2\ s^{-2}$
034	watt	W	W	W	$kg\ m^2\ s^{-3}$
035	coulomb	C	C	C	A s
036	volt	V	V	V	$kg\ m^2\ s^{-3}\ A^{-1}$
037	farad	F	F	F	$kg^{-1}\ m^{-2}\ s^4\ A^2$
038	ohm	$\Omega$	Ohm	OHM	$kg\ m^2\ s^{-3}\ A^{-2}$
039	siemens	S	S	SIE	$kg^{-1}\ m^{-2}\ s^3\ A^2$
040	weber	Wb	Wb	WB	$kg\ m^2\ s^{-2}\ A^{-1}$
041	tesla	T	T	T	$kg\ s^{-2}\ A^{-1}$
042	henry	H	H	H	$kg\ m^2\ s^{-2}\ A^{-2}$
060	degree Celsius	$^{\circ}C$	Cel	CEL	K+273.15
070	lumen	lm	lm	LM	cd sr
071	lux	lx	lx	LX	cd sr m <sup>-2</sup>
080	becquerel	Bq	Bq	BQ	$s^{-1}$
081	gray	Gy	Gy	GY	$m^2\ s^{-2}$
082	sievert	Sv	Sv	SV	$m^2\ s^{-2}$
SI Unit prefixes (1) (3) (4)					
no	(yotta)	(Y)	(Y)	(Y)	
no	(zetta)	(Z)	(Z)	(Z)	
no	exa	E	E	E	
no	peta	P	P	PE	
no	tera	T	T	T	
no	giga	G	G	G	
no	mega	M	M	MA	
no	kilo	k	k	K	
no	hecto	h	h	H	
no	deca	da	da	DA	
no	deci	d	d	D	

Code figure		Conventional abbreviation	Abbreviation in IA5/ASCII (5)	Abbreviation in IA2 (5)	Definition in base units (2)
no	centi	c	c	C	
no	milli	m	m	M	
no	micro	$\mu$	u	U	
no	nano	n	n	N	
no	pico	p	p	P	
no	femto	f	f	F	
no	atto	a	a	A	
no	(zepto)	(z)	(z)		
no	(yocto)	(y)	(y)		
Other, non-SI, units recognized by CGPM (4)					
110	degree (angle)	°	deg	DEG	
111	minute (angle)	'	'	MNT	
112	second (angle)	"	"	SEC	
120	litre	l or L	l or L	L	
130	minute (time)	min	min	MIN	
131	hour	h	h	HR	
132	day	d	d	D	
150	tonne	t	t	TNE	
160	electron volt	eV	eV	EV	
161	atomic mass unit	u	u	U	
170	astronomic unit	AU	AU	ASU	
171	parsec	pc	pc	PRS	
Non-SI Units tolerated because of widespread use					
200	nautical mile				
201	knot	kt	kt	KT	
210	decibel (6)	dB	dB	DB	
220	hectare	ha	ha	HAR	
230	week				
231	year	a	a	ANN	
Other Units as used by WMO (7)					
300	percent	%	%	PERCENT	
301	parts per thousand	‰	0/00	PERTHOU	
310	eighths of cloud	okta	okta	OKTA	
320	degrees true	°	deg	DEG	
321	degrees per second	degree/s	deg/s	DEG/S	
350	degrees Celsius (8)	°C	C	C	
351	degrees Celsius per metre	°C/m	C/m	C/M	
352	degrees Celsius per 100 metres	°C/100 m	C/100 m	C/100 M	
360	Dobson Unit (9)	DU	DU	DU	
430	month	mon	mon	MON	
441	per second (same as hertz)	s <sup>-1</sup>	/s	/S	
442	per second squared	s <sup>-2</sup>	s-2		
501	knots per 1000 metres	kt/1000 m	kt/km	KT/KM	
510	foot	ft	ft	FT	
511	inch	in	in	IN	

Code figure		Conventional abbreviation	Abbreviation in IA5/ASCII (5)	Abbreviation in IA2 (5)	Definition in base units (2)
520	decipascals per second (microbar per second)	dPa s <sup>-1</sup>	dPa/s	DPAL/S	
521	centibars per second	cb s <sup>-1</sup>	cb/s	CB/S	
522	centibars per 12 hours	cb/12 h	cb/12 h	CB/12 HR	
523	dekapascal	daPa	daPa	DAPAL	
530	hectopascal	hPa	hPa	HPAL	
531	hectopascals per second	hPa s <sup>-1</sup>	hPa/s	HPAL/S	
532	hectopascals per hour	hPa h <sup>-1</sup>	hPa/h	HPAL/HR	
533	hectopascals per 3 hours	hPa/3 h	hPa/3 h	HPAL/3 HR	
535	nanobar = hPa 10 <sup>-6</sup>	nbar	nbar	NBAR	
620	grams per kilogram	g kg <sup>-1</sup>	g/kg	G/KG	
621	grams per kilogram per second	g kg <sup>-1</sup> s <sup>-1</sup>	g kg-1 s-1		
622	kilograms per kilogram	kg kg <sup>-1</sup>	kg/kg	KG/KG	
623	kilograms per kilogram per second	kg kg <sup>-1</sup> s <sup>-1</sup>	kg kg-1 s-1		
624	kilograms per square metre	kg m <sup>-2</sup>	kg m-2		
630	acceleration due to gravity	g	g		
631	geopotential metre	gpm	gpm		
710	millimetre	mm	mm	MM	
711	millimetres per second	mm s <sup>-1</sup>	mm/s	MM/S	
712	millimetres per hour	mm h <sup>-1</sup>	mm/h	MM/HR	
713	millimetres to the sixth power per cubic metre	mm <sup>6</sup> m <sup>-3</sup>	mm6 m-3		
715	centimetre	cm	cm	CM	
716	centimetres per second	cm s <sup>-1</sup>	cm/s	CM/S	
717	centimetres per hour	cm h <sup>-1</sup>	cm/h	CM/HR	
720	decimetre	dm	dm	DM	
731	metres per second	m s <sup>-1</sup>	m/s	M/S	
732	metres per second per metre	m s <sup>-1</sup> /m	m s-1/m		
733	metres per second per 1000 metres	m s <sup>-1</sup> /1000 m	m s-1/km		
734	square metres	m <sup>2</sup>	m2	M2	
735	square metres per second	m <sup>2</sup> s <sup>-1</sup>	m2/s	M2/S	
740	kilometre	km	km	KM	
741	kilometres per hour	km h <sup>-1</sup>	km/h	KM/HR	
742	kilometres per day	km/d	km/d	KM/D	
743	per metre	m <sup>-1</sup>	m-1	/M	
750	becquerels per litre	Bq l <sup>-1</sup>	Bq/l	BQ/L	
751	becquerels per square metre	Bq m <sup>-2</sup>	Bq m-2	BQ/M2	
752	becquerels per cubic metre	Bq m <sup>-3</sup>	Bq m-3	BQ/M3	
753	millisievert	mSv	mSv	MSV	
760	metres per second squared	m s <sup>-2</sup>	m s-2		
761	square metres second	m <sup>2</sup> s	m2 s		
762	square metres per second squared	m <sup>2</sup> s <sup>-2</sup>	m2 s-2		
763	square metres per radian second	m <sup>2</sup> rad <sup>-1</sup> s	m2 rad-1 s		
764	square metres per hertz	m <sup>2</sup> Hz <sup>-1</sup>	m2/Hz		
765	cubic metres	m <sup>3</sup>	m3		
766	cubic metres per second	m <sup>3</sup> s <sup>-1</sup>	m3/s		
767	cubic metres per cubic metre	m <sup>3</sup> m <sup>-3</sup>	m3 m-3		



Code figure		Conventional abbreviation	Abbreviation in IA5/ASCII (5)	Abbreviation in IA2 (5)	Definition in base units (2)
768	metres to the fourth power	$m^4$	m4		
769	metres to the two thirds power per second	$m^{2/3} s^{-1}$	m2/3 s-1		
772	logarithm per metre	$\log (m^{-1})$	log (m-1)		
773	logarithm per square metre	$\log (m^{-2})$	log (m-2)		
775	kilograms per metre	$kg m^{-1}$	kg/m		
776	kilograms per square metre per second	$kg m^{-2} s^{-1}$	kg m-2 s-1		
777	kilograms per cubic metre	$kg m^{-3}$	kg m-3		
778	per square kilogram per second	$kg^{-2} s^{-1}$	kg-2 s-1		
779	seconds per metre	$s m^{-1}$	s/m		
785	kelvin metres per second	$K m s^{-1}$	K m s-1		
786	kelvins per metre	$K m^{-1}$	K/m		
787	kelvin square metres per kilogram per second	$K m^2 kg^{-1} s^{-1}$	K m2 kg-1 s-1		
788	moles per mole	$mol mol^{-1}$	mol/mol		
790	radians per metre	$rad m^{-1}$	rad/m		
795	newtons per square metre	$N m^{-2}$	N m-2		
800	pascals per second	$Pa s^{-1}$	Pa/s		
801	kilopascal	kPa	kPa		
805	joules per square metre	$J m^{-2}$	J m-2		
806	joules per kilogram	$J kg^{-1}$	J/kg		
810	watts per metre per steradian	$W m^{-1} sr^{-1}$	W m-1 sr-1		
811	watts per square metre	$W m^{-2}$	W m-2		
812	watts per square metre per steradian	$W m^{-2} sr^{-1}$	W m-2 sr-1		
813	watts per square metre per steradian per centimetre	$W m^{-2} sr^{-1} cm^{-1}$	W m <sup>-2</sup> sr <sup>-1</sup> cm <sup>-1</sup>		
814	watts per square metre per steradian per metre	$W m^{-2} sr^{-1} m^{-1}$	W m-2 sr-1 m-1		
815	watts per cubic metre per steradian	$W m^{-3} sr^{-1}$	W m-3 sr-1		
820	siemens per metre	$S m^{-1}$	S/m		
825	square degrees	degree <sup>2</sup>	deg2		
830	becquerel seconds per cubic metre	$Bq s m^{-3}$	Bq s m-3		
835	decibels per metre	$dB m^{-1}$	dB/m		
836	decibels per degree	$dB degree^{-1}$	dB/deg		
841	pH unit	pH unit	pH unit		
842	N units	N units	N units		

#### Notes:

- (1) The international system of units, *Système International*, SI, was established by the 11th *Conférence Générale des Poids et Mesures* (CGPM) in 1960, and extended at the 1980 conference. There are 7 Base Units, 2 dimensionless Supplementary Units and a set of prefixes for decimal scaling. These may be combined to give compound units. Some compound units have special names, and are called Derived Units.
- (2) When documenting compound SI units, each symbol for each base unit has been separated from the others by a space. There is no space between the unit and any prefix or exponent. Any prefix establishes a new unit to which any exponent applies (e.g. km2 = (km)2 = m6 not k(m2) = m5). Prefixes must be in the case specified. The full name of the unit must not start with an upper case letter. If the solidus (/) is used, there must be only one. There is no space before or after it.
- (3) Prefixes beyond exa and atto have been proposed but not yet adopted. Use of the prefixes hecto, deka, deci and centi is discouraged.
- (4) Prefixes generally should not be used with units having non-decimal multiples and sub-multiples, such as units of time and angle, or with knots and nautical miles.
- (5) Non-WMO abbreviations with limited character sets taken from ISO 2955-1983. Other abbreviations try to be consistent with this."
- (6) The decibel is one tenth of a bel, which is the decimal logarithm of a ratio of two powers. Frequently, suffixes are supplied to indicate information about one of the quantities in the ratio, such as dB(mW), dBm, **dBZ**, dBW, dBmW, dB(uV/m). It is recommended that only dB is used, with the full meaning of the ratio explained, including reference levels.
- (7) This list consists of the units not mentioned previously that occur in existing WMO Manuals.

- (8) The abbreviation for degrees Celsius proposed for WMO use, C, could be confused with Coulombs. In this case, Amperes second should be used instead.
- (9) Dobson Unit = DU. One Dobson Unit corresponds to a layer of 0.01 mm of pure ozone, if the whole column of atmosphere were compressed at  $P=1013$  hPa and  $T = 0^{\circ}\text{C}$ .

# COMMON CODE TABLE C-7: *Tracking technique/status of system used*

Common Code table { Code table 3872 - s<sub>a</sub> s<sub>a</sub> for alphanumeric code  
Code table 0 02 014 in BUFR

Code figure for s <sub>a</sub> s <sub>a</sub>	Code figure for BUFR (Code table 0 02 014)		Status
00	0	No wind finding	Operational
01	1	Automatic with auxiliary optical direction finding	Operational
02	2	Automatic with auxiliary radio direction finding	Operational
03	3	Automatic with auxiliary ranging	Operational
04	4	Not used	Operational
05	5	Automatic with multiple VLF-Omega signals	Operational
06	6	Automatic cross chain Loran-C	Operational
07	7	Automatic with auxiliary wind profiler	Operational
08	8	Automatic satellite navigation	Operational
09-18	9-18	Reserved	Operational
19	19	Tracking technique not specified	Operational
		TRACKING TECHNIQUES/STATUS OF ASAP SYSTEM	Operational
		STATUS OF SHIP SYSTEM	Operational
20	20	Vessel stopped	Operational
21	21	Vessel diverted from original destination	Operational
22	22	Vessel's arrival delayed	Operational
23	23	Container damaged	Operational
24	24	Power failure to container	Operational
25-28	25-28	Reserved for future use	Operational
29	29	Other problems	Operational
		SOUNDING SYSTEM	Operational
30	30	Major power problems	Operational
31	31	UPS inoperative	Operational
32	32	Receiver hardware problems	Operational
33	33	Receiver software problems	Operational
34	34	Processor hardware problems	Operational
35	35	Processor software problems	Operational
36	36	NAVAID system damaged	Operational
37	37	Shortage of lifting gas	Operational
38	38	Reserved	Operational
39	39	Other problems	Operational
		LAUNCH FACILITIES	Operational
40	40	Mechanical defect	Operational
41	41	Material defect (hand launcher)	Operational
42	42	Power failure	Operational
43	43	Control failure	Operational
44	44	Pneumatic/hydraulic failure	Operational
45	45	Other problems	Operational

Code figure for S <sub>a</sub> S <sub>a</sub>	Code figure for BUFR (Code table 0 02 014)		Status
46	46	Compressor problems	Operational
47	47	Balloon problems	Operational
48	48	Balloon release problems	Operational
49	49	Launcher damaged	Operational
		DATA ACQUISITION SYSTEM	Operational
50	50	R/S receiver antenna defect	Operational
51	51	NAVAID antenna defect	Operational
52	52	R/S receiver cabling (antenna) defect	Operational
53	53	NAVAID antenna cabling defect	Operational
54-58	54-58	Reserved	Operational
59	59	Other problems	Operational
		COMMUNICATIONS	Operational
60	60	ASAP communications defect	Operational
61	61	Communications facility rejected data	Operational
62	62	No power at transmitting antenna	Operational
63	63	Antenna cable broken	Operational
64	64	Antenna cable defect	Operational
65	65	Message transmitted power below normal	Operational
66-68	66-68	Reserved	Operational
69	69	Other problems	Operational
70	70	All systems in normal operation	Operational
71-98	71-98	Reserved	Operational
99	99	Status of system and its components not specified	Operational
	100-126	Reserved	Operational
	127	Missing value	Operational

## COMMON CODE TABLE C-8: *Satellite instruments*

Common Code table      Code table 0 02 019 in BUFR

Code	Agency	Type	Instrument short name	Instrument long name	Status
10	BNSC	Radiometer	AATSR	Advanced along track scanning radiometer	Operational
11	BNSC	Radiometer	ATSR	Along track scanning radiometer	Operational
12	BNSC	Radiometer	ATSR-2	Along track scanning radiometer - 2	Operational
13	BNSC	Radiometer	MWR	Microwave radiometer	Operational
30	CNES	Communications	ARGOS		Operational
40	CNES	Lidar	Laser reflectors		Operational
41	CNES	Lidar	DORIS	Doppler orbitography and radio-positioning integrated by satellite	Operational
42	CNES	Lidar	DORIS-NG	Doppler orbitography and radio-positioning integrated by satellite-	Operational
47	CNES	Radar altimeter	POSEIDON-1 (SSALT1)	Positioning ocean solid Earth ice dynamics orbiting navigator (single frequency solid state radar altimeter)	Operational
48	CNES	Radar altimeter	POSEIDON-2 (SSALT2)	Positioning ocean solid Earth ice dynamics orbiting navigator (double frequency solid state radar altimeter)	Operational
50	CNES	Imager radiometer	ATSR/M	ATSR/M	Operational
51	CNES	High resolution optical imager	HRG		Operational
52	CNES	Radiometer	HRV	High-resolution visible	Operational
53	CNES	Radiometer	HRVIR	High-resolution visible and infrared	Operational
54	CNES	Radiometer	ScaRaB/MV2	Scanner for Earth's radiation budget	Operational
55	CNES	Radiometer	POLDER	POLDER	Operational
60	CNES	Spectrometer	VEGETATION	VEGETATION	Operational
61	CNES	Spectrometer	WINDII	WINDII	Operational
80	CSA	Communications	RADARSAT DTT		Operational
81	CSA	Communications	RADARSAT TTC		Operational
85	CSA	Radar	SAR (CSA)	Synthetic aperture radar (CSA)	Operational
90	CSA	Radiometer	MOPITT	Measurements of pollution in the troposphere	Operational
91	CSA	Atmospheric chemistry instrument	OSIRIS	Optical spectrograph and Infrared imaging system	Operational
97	CSIRO	Radiometer	Panchromatic imager		Operational
98	CRCSS	Atmospheric temperature and humidity sounder	GPS receiver		Operational
102	DLR	Radiometer	CHAMP GPS sounder	GPS turborogue space receiver (TRSR)	Operational
103	DLR	Radiometer	IGOR	Integrated GPS and Occultation Receiver	Operational
116	DLR	Magnetometer	CHAMP gravity package (Accelerometer+GPS)	STAR accelerometer	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
117	DLR	Magnetometer	CHAMP magnetometry package (1 scalar+2 vector magnetometer)	Overhauser magnetometer (OVM) and fluxgate magnetometer (FGM)	Operational
120	ESA	Communications	ENVISAT Comms	Communications package on ENVISAT	Operational
121	ESA	Communications	ERS Comms	Communication package for ERS	Operational
130	ESA	Lidar	ALADIN	Atmospheric laser doppler instrument	Operational
131	ESA	Lidar	ATLID	Atmospheric lidar	Operational
140	ESA	Radar	AMI/SAR/Image	Active microwave instrumentation image mode	Operational
141	ESA	Radar	AMI/SAR/wave	Active microwave instrumentation wave mode	Operational
142	ESA	Radar	AMI/scatterometer	Active microwave instrumentation wind mode	Operational
143	ESA	Radar	ASAR	ASAR	Operational
144	ESA	Imaging microwave	ASAR	Advanced synthetic aperture radar (image mode)	Operational
145	ESA	Imaging microwave	ASAR	Advanced synthetic aperture radar (wave mode)	Operational
146	ESA	Cloud profile and rain radar	CPR	Cloud radar	Operational
147	ESA	Radar	RA-2/MWR	Radar altimeter - 2	Operational
148	ESA	Radar	RA/MWR	Radar altimeter	Operational
150	ESA	Scatterometer	SCATTEROMETER	Scatterometer	Operational
161	ESA	Radiometer	MIPAS	Michelson interferometric passive atmosphere sounder	Operational
162	ESA	Imaging multi-spectral radiometer (passive microwave)	MWR-2	Microwave radiometer-2	Operational
163	ESA	Atmospheric chemistry instrument	SOPRANO	Sub-millimetre observation of processes in the absorption noteworthy for ozone	Operational
170	ESA	Atmospheric chemistry instrument	GOME	Global ozone monitoring experiment	Operational
172	ESA	Spectrometer	GOMOS	Global ozone monitoring by occultation of stars	Operational
174	ESA	Spectrometer	MERIS	Medium resolution imaging spectrometer	Operational
175	ESA	Spectrometer	SCIAMACHY	Scanning imaging absorption spectrometer for atmospheric cartography	Operational
176	ESA	Radiometer	MIRAS	Microwave Imaging Radiometer Using Aperture Synthesis	Operational
181	EUMETSAT	Communications	METEOSAT Comms	Communications package for METEOSAT	Operational
182	EUMETSAT	Communications	MSG Comms	Communications package for MSG	Operational
190	ESA/EUMETSAT	Scatterometer	ASCAT	Advanced scatterometer	Operational
200	EUMETSAT	Radiometer	GERB	Geostationary Earth radiation	Operational
202	ESA/EUMETSAT	Radiometer	GRAS	GNSS receiver for atmospheric sounding	Operational
203	EUMETSAT	Radiometer	MHS	Microwave humidity sounder	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
205	EUMETSAT	Radiometer	MVIRI	METEOSAT visible and infrared imager	Operational
207	EUMETSAT	Radiometer	SEVIRI	Spinning enhanced visible and infrared imager	Operational
208	EUMETSAT	Imaging multi-spectral radiometer (vis/IR)	VIRI	VIRI	Operational
220	ESA/EUMETSAT	Spectrometer	GOME-2	Global ozone monitoring experiment - 2	Operational
221	CNES/EUMETSAT	Atmospheric temperature and humidity sounder	IASI	Infrared atmospheric sounding interferometer	Operational
240	CAST	Communications	DCP	Data-collection platform transponder	Operational
245	CAST	Radiometer	CCD	High-resolution CCD camera	Operational
246	INPE	Atmospheric temperature and humidity sounder	HSB	Humidity sounder/Brazil	Operational
248	INPE	Imaging multi-spectral radiometer (vis/IR)	OBA	Observador Brasileiro da Amazonia	Operational
250	CAST	Radiometer	WFI	Wide field imager	Operational
255	CAST	Spectrometer	IRMSS	Infrared multispectral scanner	Operational
260	ISRO	Precision orbit	BSS & FSS transponders		Operational
261	ISRO	Precision orbit	DRT-S&R		Operational
262	ISRO	Communications	INSAT Comms	Communications package for	Operational
268	ISRO	High resolution optical imager	HR-PAN	High-resolution panchromatic camera	Operational
269	ISRO	Imaging multi-spectral radiometer (passive microwave)	MSMR	Multifrequency scanning microwave radiometer	Operational
270	ISRO	Imaging multi-spectral radiometer (vis/IR)	VHRR	Very high resolution radiometer	Operational
271	ISRO	Imaging multi-spectral radiometer (vis/IR)	WIFS	Wide field sensor	Operational
275	ISRO	High-resolution optical imager	AWiFS	Advanced wide field sensor	Operational
276	ISRO	High-resolution optical imager	LISS-I	Linear imaging self scanner - I	Operational
277	ISRO	High-resolution optical imager	LISS-II	Linear imaging self scanner - II	Operational
278	ISRO	High-resolution optical imager	LISS-III	Linear imaging self scanner - III	Operational
279	ISRO	High-resolution optical imager	LISS-IV	Linear imaging self scanner - IV	Operational
284	ISRO	High-resolution optical imager	PAN	Panchromatic sensor	Operational
285	ISRO	Imaging multi-spectral radiometer (vis/IR)	MOS	Modular opto-electronic scanner	Operational
286	ISRO	Ocean colour instrument	OCM	Ocean colour monitor	Operational
290	JMA	Communications	MTSAT Comms	Communications package for MTSAT	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
294	JMA	Imaging multi-spectral radiometer	IMAGER/MTSAT-1R	Imager/MTSAT	Operational
295	JMA	Imaging multi-spectral radiometer	IMAGER/MTSAT	Imager/MTSAT	Operational
296	JMA	Imaging multi-spectral radiometer	VISSR	Visible and infrared spin scan radiometer	Operational
300	NASA	Lidar	GLAS	Geoscience laser altimeter system	Operational
301	NASA	Precision orbit	LRA	Laser retroreflector array	Operational
302	NASA	Lidar	MBLA	Multi beam laser altimeter	Operational
309	NASA	Cloud profile and rain radar	CPR (Cloudsat)	Cloud profiling radar	Operational
312	NASA	Radar	NSCAT	NASA scatterometer	Operational
313	NASA	Radar	SeaWinds	ADEOS II - NASA scatterometer	Operational
330	NASA	Earth radiation budget radiometer	ACRIM	Active cavity radiometer irradiance monitor	Operational
334	NASA	Total and profile ozone	BUV	Backscatter ultraviolet instrument	Operational
336	NASA	High-resolution optical imager	ALI	Advanced land imager	Operational
347	NASA	High-resolution optical imager	ASTER	Advanced spaceborne thermal emission and reflection radiometer	Operational
348	NASA	Earth radiation budget radiometer	CERES-2	Cloud and the Earth's radiant energy system	Operational
351	NASA	Atmospheric temperature and humidity sounder	GPSDR	GPS demonstration receiver	Operational
353	NASA	Total and profile ozone	HiRDLS	High-resolution dynamics limb sounder	Operational
354	NASA	Total and profile ozone	HRDI	High-resolution Doppler imager	Operational
356	NASA	Radiometer	LIS	Lightning imaging sensor	Operational
358	NASA	Magnetic field, Auroal imagery Scintillation boundary	PEM	Particle environment monitor	Operational
359	NASA	Ocean colour instrument	SeaWiFS	Sea-viewing wide field-of-view	Operational
360	NASA	Earth radiation budget radiometer	SUSIM (UARS)	Solar ultraviolet irradiance monitor	Operational
363	NASA	Total and profile ozone	SBUV/1	Solar backscatter ultraviolet 1 instrument	Operational
365	NASA	Imaging multi-spectral radiometer (passive microwave)	TMI	TRMM microwave imager	Operational
366	NASA	Imaging multi-spectral radiometer (passive microwave)	JMR	JASON-1 microwave radiometer	Operational
369	NASA	Total and profile ozone	LIMS	Limb infrared monitor of the stratosphere	Operational
370	NASA	Total and profile ozone	LRIR	Limb radiance inversion radiometer instrument	Operational
371	NASA	Total and profile ozone	EPIC	Earth polychromatic imaging	Operational
372	NASA	Earth radiation budget radiometer	NISTAR	NIST advanced radiometer	Operational



Code	Agency	Type	Instrument short name	Instrument long name	Status
373	NASA	Magnetic field, auroal imagery scintillation boundary	Plasma-Mag		Operational
374	NASA	Other	XPS	XUV photometer system	Operational
375	NASA	Imaging multi-spectral radiometer (vis/IR)	VIRS	Visible infrared scanner	Operational
376	CNES	Multiple direction/polarisation radiometer	POLDER II	Polarization and directionality of the Earth's reflectance - II	Operational
377	NASA	Earth radiation budget radiometer	TIM	Total irradiance monitor	Operational
379	NASA	Imaging multi-spectral radiometer (vis/IR)	WFC	Wide field camera	Operational
382	NASA	Spectro-radiometer	CLAES	Cryogenic limb array etalon spectrometer	Operational
383	NASA	Spectro-radiometer	HALOE	Halogen occultation experiment	Operational
384	NASA	Spectro-radiometer	ISAMS	Improved stratospheric and mesospheric sounder	Operational
385	NASA	Spectro-radiometer	MISR	Multi-angle imaging spectroradiometer	Operational
386	NASA	Spectro-radiometer	MLS	Microwave limb sounder	Operational
387	NASA	Spectro-radiometer	MLS (EOS-Aura)	Microwave limb sounder (EOS-Aura)	Operational
389	NASA	Spectro-radiometer	MODIS	Moderate-resolution imaging spectroradiometer	Operational
393	NASA	Gravity	HAIRS	High accuracy inter-satellite ranging system	Operational
394	NASA	Total and profile ozone	OMI	Ozone measuring instrument	Operational
395	NASA	Radiometer	Atmospheric corrector	Atmospheric corrector	Operational
396	NASA	Radiometer	Hyperion	Hyperspectral imager	Operational
399	NASA	Spectro-radiometer	SAGE I	Stratospheric aerosol and gas experiment-I	Operational
400	NASA	Spectro-radiometer	SAGE II	Stratospheric aerosol and gas experiment-II	Operational
401	NASA	Spectro-radiometer	SAGE III	Stratospheric aerosol and gas experiment-III	Operational
402	NASA	Spectro-radiometer	SAMS	Stratospheric and mesospheric sounder	Operational
403	NASA	Spectro-radiometer	SAM-II	Stratospheric aerosol measurement - II	Operational
404	NASA	Spectro-radiometer	IRIS	Infrared interferometer	Operational
405	NASA	Atmospheric temperature and humidity sounder	GIFTS	Geosynchronous imaging fourier transform spectrometer	Operational
420	NASA	Spectrometer	AIRS	Atmospheric Infrared sounder	Operational
426	NASA	Spectrometer	SOLSTICE	Solar stellar irradiance comparison experiment	Operational
430	NASA	Spectrometer	TES	Tropospheric emission spectrometer	Operational
431	NASA	Spectrometer	TOMS	Total ozone mapping spectrometer	Operational
450	JAXA	Communications	ADEOS Comms	Communications package for ADEOS	Operational
451	JAXA	Communications	DCS (JAXA)	Data collection system (JAXA)	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
453	NASDA	Communications	GMS Comms	Communications package on GMS	Operational
454	NASDA	Communications	JERS-1 Comms	Communications package for	Operational
460	NASDA	Lidar	RIS	Retroreflector in space	Operational
461	NASDA	Radar	PR	Precipitation radar	Operational
462	NASDA	Imaging microwave radar	SAR	Synthetic aperture radar	Operational
470	JAXA	Imaging microwave radar	PALSAR	Phased array type L-band synthetic aperture radar	Operational
479	JAXA	Imaging multi-spectral radiometer (passive microwave)	AMSR-E	Advanced microwave scanning radiometer-EOS	Operational
480	JAXA	High resolution optical imager	PRISM (ALOS)	Panchromatic remote-sensing Instrument for stereo mapping	Operational
481	JAXA	Radiometer	AMSR	Advanced microwave scanning Radiometer	Operational
482	NASDA	High-resolution optical imager	AVNIR	Advanced visible and near infrared radiometer	Operational
483	JAXA	High-resolution optical imager	AVNIR-2	Advanced visible and near infra-red radiometer type 2	Operational
484	JAXA	Imager	GLI	Global imager	Operational
485	NASDA	Radiometer	MESSR	Multispectral electronic self scanning radiometer	Operational
486	NASDA	Radiometer	MSR	Microwave scanning radiometer	Operational
487	NASDA	Radiometer	OCTS	Ocean color and temperature scanner	Operational
488	NASDA	Radiometer	OPS	Optical sensor	Operational
489	NASDA	Radiometer	VISSR (GMS-5)	Visible and infrared spin scan radiometer (GMS-5)	Operational
490	NASDA	Radiometer	VTIR	Visible and thermal infrared radiometer	Operational
510	NASDA	Spectrometer	ILAS-I	Imoroved limb atmosphiric spectrometer	Operational
511	NASDA	Spectrometer	ILAS-II	Improved limb atmosphiric spectrometer	Operational
512	NASDA	Spectrometer	IMG	Inferometric monitor of greenhouse gases	Operational
514	NASDA	Space environment	SEM	Space environment monitor	Operational
515	JAXA	Total and profile ozone	SOFIS	Solar occultation Fourier transform spectrometer for Inclined orbit Satellite	Operational
516	JAXA	Spectrometer	TANSO-FTS	Thermal and Near infrared Sensor for carbon Observations ( TANSO) Fourier Transform Spectrometer (FTS)	Operational
517	JAXA	Imager	TANSO-CAI	Thermal and Near infrared Sensor for carbon Observations ( TANSO) Cloud and Aerosol Imager (CAI)	Operational
540	NOAA	Communications	DCS (NOAA)	Data-collection system (NOAA)	Operational
541	NOAA	Communications	GOES Comms	Communications package on GOES	Operational
542	NOAA	Communications	LANDSAT Comms	Communications package for LANDSAT	Operational
543	NOAA	Communications	NOAA Comms	Communications package for NOAA	Operational
544	NOAA	Communications	S&R (GOES)	Search and rescue	Operational
545	NOAA	Communications	S&R (NOAA)	Search and rescue	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
546	NOAA	Communications	WEFAX	Weather facsimile	Operational
547	NOAA	Spectrometer	SEM(GOES)	Space environment monitor	Operational
550	NOAA	Magnetic field	SSM	Special sensor magnetometer	Operational
551	NOAA	Magnetic field	SSJ/4	Special sensor precipitating plasma monitor	Operational
552	NOAA	Space environment	SSIES-2	Special sensor ionospheric plasma drift/scintillation meter	Operational
553	NOAA	Space environment	SSB/X-2	Special sensor gamma ray particle dectector	Operational
570	NOAA	Radiometer	AMSU-A	Advanced microwave sounding unit-A	Operational
574	NOAA	Radiometer	AMSU-B	Advanced microwave sounding unit-B	Operational
580	NOAA	Radiometer	ATOVS (HIRS/3 + AMSU +	Advanced TIROS operational vertical sounder	Operational
590	NOAA	Radiometer	AVHRR/2	Advanced very high-resolution radiometer/2	Operational
591	NOAA	Radiometer	AVHRR/3	Advanced very high-resolution radiometer/3	Operational
592	NOAA	Radiometer	AVHRR/4	Advanced very high-resolution radiometer/4	Operational
600	NOAA	Radiometer	ERBE	Earth's radiation budget experiment	Operational
601	NOAA	Radiometer	ETM+	Enhanced thematic mapper	Operational
605	NOAA	Radiometer	HIRS/2	High-resolution infrared sounder/2	Operational
606	NOAA	Radiometer	HIRS/3	High-resolution infrared sounder/3	Operational
607	NOAA	Radiometer	HIRS/4	High-resolution infrared sounder/4	Operational
615	NOAA	Radiometer	IMAGER	Imager	Operational
616	NOAA	Imaging multi-spectral radiometer (vis/IR)	VIIRS	Visible/infrared imager radiometer suite	Operational
620	NOAA	Atmospheric temperature and humidity sounder	CrIRS/NP	Cross track infrared sounder/NPOESS	Operational
621	NOAA	Atmospheric temperature and humidity sounder	ATMS	Advanced technology microwave sounder	Operational
622	NOAA	Radiometer	MSS	Multispectral scanning system	Operational
623	NOAA	Radiometer	MSU	Microwave sounding unit	Operational
624	NOAA	Radiometer	SBUV/2	Solar backscattter ultraviolet instrument/2	Operational
625	NOAA	Radiometer	SBUV/3	Solar backscattter ultraviolet instrument/3	Operational
626	NOAA	Radiometer	SOUNDER	SOUNDER	Operational
627	NOAA	Radiometer	SSU	Stratospheric sounding unit	Operational
628	NOAA	Radiometer	TM	Thematic mapper	Operational
629	NOAA	Radiometer	TOVS (HIRS/2 + MSU + SSU)	TIROS operational vertical sounder	Operational
630	NOAA	Radiometer	VAS	VISSR atmospheric sounder	Operational
631	NOAA	Radiometer	SSZ		Operational
645	NOAA	Spectrometer	SEM	Space environment monitor	Operational
650	NRSCC	Radiometer	MVIRS (10 channel)	Multispectral visible and infrared scan radiometer	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
651	NRSCC	Radiometer	MVIRSR (3 channel)	Multispectral visible and infrared scan radiometer	Operational
652	NRSCC	Radiometer	MVIRSR (5 channel)	Multispectral visible and infrared scan radiometer	Operational
670	NSAU	Radar	RLSBO	Side looking microwave radar	Operational
680	NSAU	High-resolution optical imager	MSU-EU	Multi-spectral radiometer with high resolution	Operational
681	NSAU	Imaging multi-spectral radiometer (vis/IR)	MSU-UM	Visible multi-spectral radiometer	Operational
682	NSAU	Radiometer	RM-08	Imaging microwave radiometer	Operational
683	NSAU	High-resolution optical imager	SU-UMS	Stereo radiometer with high resolution	Operational
684	NSAU	High-resolution optical imager	SU-VR	Visible radiometer with high resolution	Operational
685	NSAU	Radiometer	TRASSER		Operational
700	ROSCOSMOS	Communications	KONDOR-2	Data collection and transmission system	Operational
701	ROSCOSMOS	Communications	BRK		Operational
710	ROSCOSMOS	Lidar	ALISSA	Backscatter lidar	Operational
712	ROSCOSMOS	Lidar	Balkan-2 lidar		Operational
715	ROSCOSMOS	Lidar	MK-4		Operational
716	ROSCOSMOS	Lidar	MK-4M		Operational
730	ROSCOSMOS	Radar	Greben	Radar altimeter	Operational
731	ROSCOSMOS	Radar	SAR-10	Syntetic aperture radar	Operational
732	ROSCOSMOS	Radar	SAR-3	Syntetic aperture radar	Operational
733	ROSCOSMOS	Radar	SAR-70	Syntetic aperture radar	Operational
740	ROSCOSMOS	Radar	SLR-3	Side looking radar	Operational
745	ROSCOSMOS	Radar	Travers SAR		Operational
750	ROSCOSMOS	Radiometer	174-K	Temperature and humidity profiler	Operational
751	ROSCOSMOS	Radiometer	BTVK	Scanning television radiometer	Operational
752	ROSCOSMOS	Radiometer	Chaika	Scanning infrared radiometer	Operational
753	ROSCOSMOS	Radiometer	DELTA-2	Multispectral microwave scanner	Operational
755	ROSCOSMOS	Radiometer	IKAR-D	Multispectral microwave scanner	Operational
756	ROSCOSMOS	Radiometer	IKAR-N	Multispectral microwave scanner	Operational
757	ROSCOSMOS	Radiometer	IKAR-P	Multispectral microwave scanner	Operational
760	ROSCOSMOS	Radiometer	ISP		Operational
761	ROSCOSMOS	Radiometer	KFA-1000	Photographic camera	Operational
762	ROSCOSMOS	Radiometer	KFA-200	Photographic camera	Operational
763	ROSCOSMOS	Radiometer	KFA-3000	Photographic camera	Operational
770	ROSCOSMOS	Radiometer	Klimat	Scanning infrared radiometer	Operational
771	ROSCOSMOS	Radiometer	Klimat-2	Scanning infrared radiometer	Operational
775	ROSCOSMOS	Radiometer	MIRAS		Operational
776	ROSCOSMOS	Radiometer	MIVZA		Operational
777	ROSCOSMOS	Radiometer	MIVZA-M	Microwave scanning radiometer	Operational
780	ROSCOSMOS	Radiometer	MR-2000		Operational
781	ROSCOSMOS	Radiometer	MR-2000M		Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
785	ROSCOSMOS	Radiometer	MR-900	Scanning telephotometer	Operational
786	ROSCOSMOS	Radiometer	MR-900B	Scanning visual band telephotometer	Operational
790	ROSCOSMOS	Radiometer	MSU-E	Multispectral high-resolution electronic scanner	Operational
791	ROSCOSMOS	Radiometer	MSU-E1	Multispectral high-resolution electronic scanner	Operational
792	ROSCOSMOS	Radiometer	MSU-E2	Multispectral high-resolution electronic scanner	Operational
793	ROSCOSMOS	Radiometer	MSU-M		Operational
794	ROSCOSMOS	Radiometer	MSU-S	Multispectral medium-resolution scanner	Operational
795	ROSCOSMOS	Radiometer	MSU-SK	Multispectral medium-resolution conical scanner	Operational
796	ROSCOSMOS	Radiometer	MSU-V	Multispectral high-resolution conical scanner	Operational
810	ROSCOSMOS	Radiometer	MTZA	Scanning microwave radiometer	Operational
815	ROSCOSMOS	Imaging multi-spectral radiometer (passive microwave)	MZOAS	Scanning microwave radiometer	Operational
820	ROSCOSMOS	Imaging multi-spectral radiometer (passive microwave)	R-225	Single channel microwave radiometer	Operational
821	ROSCOSMOS	Radiometer	R-400		Operational
822	ROSCOSMOS	Radiometer	R-600	Single channel microwave radiometer	Operational
830	ROSCOSMOS	Radiometer	RMS	Radiation measurement system	Operational
835	ROSCOSMOS	Radiometer	TV camera		Operational
836	ROSCOSMOS	Radiometer	SILVA		Operational
840	ROSCOSMOS	Spectro-radiometer	SROSMO	Spectroradiometer for ocean monitoring	Operational
850	ROSCOSMOS	Spectrometer	BUFS-2	Backscatter spectrometer/2	Operational
851	ROSCOSMOS	Spectrometer	BUFS-4	Backscatter spectrometer/4	Operational
855	ROSCOSMOS	Spectrometer	ISTOK-1	Infrared spectrometer	Operational
856	ROSCOSMOS	Spectrometer	SFM-2	Spectrometer to measure direct solar radiation	Operational
857	ROSCOSMOS	Spectrometer	DOPI		Operational
858	ROSCOSMOS	Spectrometer	KGI-4		Operational
859	ROSCOSMOS	Spectrometer	Ozon-M		Operational
860	ROSCOSMOS	Spectrometer	RMK-2		Operational
900	NOAA	Radiometer	MAXIE	Magnetospheric atmospheric X-ray imaging experiment	Operational
901	NOAA	Radiometer	OLS	Operational linescan system	Operational
905	NOAA	Radiometer	SSM/I	Mission sensor microwave imager	Operational
906	NOAA	Radiometer	SSM/T-1	Mission sensor microwave temperature sounder	Operational
907	NOAA	Radiometer	SSM/T-2	Mission sensor microwave water vapour sounder	Operational
908	NOAA	Radiometer	SSMIS	Special sensor microwave imager sounder	Operational
910	NOAA	Radiometer	SXI	Solar X-ray imager	Operational
930	NOAA	Spectrometer	EHIC	Energetic heavy ion composition experiment	Operational

Code	Agency	Type	Instrument short name	Instrument long name	Status
931	NOAA	Spectrometer	X-ray astronomy payload		Operational
932	NRSCC	Imaging multi-spectral radiometer (vis/IR)	IVISSR (FY-2)	Improved multispectral visible and Infrared scan radiometer (5	Operational
933	NRSCC	Atmospheric temperature and humidity sounder	IRAS	Infrared atmospheric sounder	Operational
934	NRSCC	Atmospheric temperature and humidity sounder	MWAS	MicroWave atmospheric sounder	Operational
935	NRSCC	Atmospheric temperature and humidity sounder	IMWAS	Improved MicroWave atmospheric sounder	Operational
936	NRSCC	Atmospheric temperature and humidity sounder	MWHS	Microwave humidity sounder	Operational
937	NRSCC	Imaging multi-spectral radiometer (vis/IR)	MVIRS	Moderate resolution visible and infrared imaging spectroradiometer	Operational
938	NRSCC	Imaging multi-spectral radiometer (passive microwave)	MWRI	Microwave radiation imager	Operational
940	ROSCOSMOS	Atmospheric temperature and humidity sounder	MTVZA-OK	Scanning microwave radiometer	Operational
941	CNES	Atmospheric temperature and humidity sounder	SAPHIR		Operational
944	NOAA	Radar altimeter	ALT	Altimeter	Operational
945	NOAA	Earth radiation budget radiometer	TSIS	Total solar irradiance sensor	Operational
946	NOAA	Imaging multi-spectral radiometer (passive microwave)	CMIS	Conical-scanning microwave imager/sounder	Operational
947	NOAA	Total and profile ozone	OMPS	Ozone mapping and profiler suite	Operational
948	NOAA	Space environment atmospheric temperature and humidity sounder	GPSOS	Global positioning system occultation sensor	Operational
949	NOAA	Magnetic field, Auroal imagery Scintillation boundary	SESS	Space environmental sensor suite	Operational
950	NRSCC	Imaging multi-spectral radiometer (vis/IR)	VIRR	Multispectral visible and infrared scan radiometer (10 channels)	Operational
951	NRSCC	Total and profile ozone	TOM	Total ozone mapper	Operational
952	NRSCC	Total and profile ozone	OP	Ozone profiler	Operational
953-999	Reserved				Operational
1000-	Reserved for long-term future use				Operational
2047	Missing value				Operational

## COMMON CODE TABLE C-11: *Originating/generating centres*

Common Code table	{			BUFR 0 01 035
	{			CREX Edition 2, 00000 in Group Pooooopp in Section 1
	{			GRIB Edition 2, Octets 6-7 in Section 1
	{			BUFR Edition 4, Octets 5-6 in Section 1
CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1			Status
00000	0	WMO Secretariat		Operational
		00001-00009: WMCs		Operational
00001	1	Melbourne		Operational
00002	2	Melbourne		Operational
00003	3	)		Operational
00004	4	Moscow		Operational
00005	5	Moscow		Operational
00006	6	)		Operational
00007	7	US National Weather Service, National Centres for Environmental Prediction (NCEP)		Operational
00008	8	US National Weather Service Telecommunications Gateway (NWSTG)		Operational
00009	9	US National Weather Service - Other		Operational
		00010-00025: Centres in Region I		Operational
00010	10	Cairo (RSMC)		Operational
00011	11	)		Operational
00012	12	Dakar (RSMC)		Operational
00013	13	)		Operational
00014	14	Nairobi (RSMC)		Operational
00015	15	)		Operational
00016	16	Casablanca (RSMC)		Operational
00017	17	Tunis (RSMC)		Operational
00018	18	Tunis Casablanca (RSMC)		Operational
00019	19	)		Operational
00020	20	Las Palmas		Operational
00021	21	Algiers (RSMC)		Operational
00022	22	ACMAD		Operational
00023	23	Mozambique (NMC)		Operational
00024	24	Pretoria (RSMC)		Operational
00025	25	La Réunion (RSMC)		Operational
		00026-00040: Centres in Region II		Operational
00026	26	Khabarovsk (RSMC)		Operational
00027	27	)		Operational
00028	28	New Delhi (RSMC)		Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00029	29	)	Operational
00030	30	Novosibirsk (RSMC)	Operational
00031	31	)	Operational
00032	32	Tashkent (RSMC)	Operational
00033	33	Jeddah (RSMC)	Operational
00034	34	Tokyo (RSMC), Japan Meteorological Agency	Operational
00035	35	)	Operational
00036	36	Bangkok	Operational
00037	37	Ulan Bator	Operational
00038	38	Beijing (RSMC)	Operational
00039	39	)	Operational
00040	40	Seoul	Operational
		00041-00050: Centres in Region III	Operational
00041	41	Buenos Aires (RSMC)	Operational
00042	42	)	Operational
00043	43	Brasilia (RSMC)	Operational
00044	44	)	Operational
00045	45	Santiago	Operational
00046	46	Brazilian Space Agency - INPE	Operational
00047	47	Colombia (NMC)	Operational
00048	48	Ecuador (NMC)	Operational
00049	49	Peru (NMC)	Operational
00050	50	Venezuela (NMC)	Operational
		00051-00063: Centres in Region IV	Operational
00051	51	Miami (RSMC)	Operational
00052	52	Miami RSMC, National Hurricane Center	Operational
00053	53	Montreal (RSMC)	Operational
00054	54	)	Operational
00055	55	San Francisco	Operational
00056	56	ARINC Centre	Operational
00057	57	U.S. Air Force Air Force Global Weather Central	Operational
00058	58	Fleet Numerical Meteorology and Oceanography Center, Monterey, CA, USA	Operational
00059	59	The NOAA Forecast Systems Laboratory, Boulder, CO,	Operational
00060	60	United States National Centre for Atmospheric Research (NCAR)	Operational
00061	61	Service ARGOS - Landover	Operational
00062	62	U.S. Naval Oceanographic Office	Operational



CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00063	63	International Research Institute for Climate and Society (IRI)	Operational
		00064-00073: Centres in Region V	Operational
00064	64	Honolulu (RSMC)	Operational
00065	65	Darwin (RSMC)	Operational
00066	66	)	Operational
00067	67	Melbourne (RSMC)	Operational
00068	68	Reserved	Operational
00069	69	Wellington (RSMC)	Operational
00070	70	)	Operational
00071	71	Nadi (RSMC)	Operational
00072	72	Singapore	Operational
00073	73	Malaysia (NMC)	Operational
		00074-00099: Centres in Region VI	Operational
00074	74	UK Meteorological Office - Exeter (RSMC)	Operational
00075	75	)	Operational
00076	76	Moscow (RSMC)	Operational
00077	77	Reserved	Operational
00078	78	Offenbach (RSMC)	Operational
00079	79	)	Operational
00080	80	Rome (RSMC)	Operational
00081	81	)	Operational
00082	82	Norrköping	Operational
00083	83	)	Operational
00084	84	Toulouse (RSMC)	Operational
00085	85	Toulouse (RSMC)	Operational
00086	86	Helsinki	Operational
00087	87	Belgrade	Operational
00088	88	Oslo	Operational
00089	89	Prague	Operational
00090	90	Episkopi	Operational
00091	91	Ankara	Operational
00092	92	Frankfurt/Main	Operational
00093	93	London (WAFC)	Operational
00094	94	Copenhagen	Operational
00095	95	Rota	Operational
00096	96	Athens	Operational
00097	97	European Space Agency (ESA)	Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00098	98	European Centre for Medium Range Weather Centre (ECMWF) (RSMC)	Operational
00099	99	De Bilt	Operational
		Additional Centres	Operational
00100	100	Brazzaville	Operational
00101	101	Abidjan	Operational
00102	102	Libyan Arab Jamahiriya (NMC)	Operational
00103	103	Madagascar (NMC)	Operational
00104	104	Mauritius (NMC)	Operational
00105	105	Niger (NMC)	Operational
00106	106	Seychelles (NMC)	Operational
00107	107	Uganda (NMC)	Operational
00108	108	Tanzania (NMC)	Operational
00109	109	Zimbabwe (NMC)	Operational
00110	110	Hong-Kong, China	Operational
00111	111	Afghanistan (NMC)	Operational
00112	112	Bahrain (NMC)	Operational
00113	113	Bangladesh (NMC)	Operational
00114	114	Bhutan (NMC)	Operational
00115	115	Cambodia (NMC)	Operational
00116	116	Democratic People's Republic of Korea (NMC)	Operational
00117	117	Islamic Republic of Iran (NMC)	Operational
00118	118	Iraq (NMC)	Operational
00119	119	Kazakhstan (NMC)	Operational
00120	120	Kuwait (NMC)	Operational
00121	121	Kyrgyzstan (NMC)	Operational
00122	122	Lao People's Democratic Republic (NMC)	Operational
00123	123	Macao, China	Operational
00124	124	Maldives (NMC)	Operational
00125	125	Myanmar (NMC)	Operational
00126	126	Nepal (NMC)	Operational
00127	127	Oman (NMC)	Operational
00128	128	Pakistan (NMC)	Operational
00129	129	Qatar (NMC)	Operational
00130	130	Republic of Yemen (NMC)	Operational
00131	131	Sri Lanka (NMC)	Operational
00132	132	Tajikistan (NMC)	Operational
00133	133	Turkmenistan (NMC)	Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00134	134	United Arab Emirates (NMC)	Operational
00135	135	Uzbekistan (NMC)	Operational
00136	136	Socialist Republic of Viet Nam (NMC)	Operational
00137-00139	137-139	Reserved for other centres	Operational
00140	140	Bolivia (NMC)	Operational
00141	141	Guyana (NMC)	Operational
00142	142	Paraguay (NMC)	Operational
00143	143	Suriname (NMC)	Operational
00144	144	Uruguay (NMC)	Operational
00145	145	French Guyana	Operational
00146	146	Brazilian Navy Hydrographic Centre	Operational
00147	147	COMision Nacional de Actividades Espaciales (CONAE) - Argentina	Operational
00148-00149	148-149	Reserved for other centres	Operational
00150	150	Antigua and Barbuda (NMC)	Operational
00151	151	Bahamas (NMC)	Operational
00152	152	Barbados (NMC)	Operational
00153	153	Belize (NMC)	Operational
00154	154	British Caribbean Territories Centre	Operational
00155	155	San Jose	Operational
00156	156	Cuba (NMC)	Operational
00157	157	Dominica (NMC)	Operational
00158	158	Dominican Republic (NMC)	Operational
00159	159	El Salvador (NMC)	Operational
00160	160	US NOAA/NESDIS	Operational
00161	161	US NOAA Office of Oceanic and Atmospheric Research	Operational
00162	162	Guatemala (NMC)	Operational
00163	163	Haiti (NMC)	Operational
00164	164	Honduras (NMC)	Operational
00165	165	Jamaica (NMC)	Operational
00166	166	Mexico	Operational
00167	167	Netherlands Antilles and Aruba (NMC)	Operational
00168	168	Nicaragua (NMC)	Operational
00169	169	Panama (NMC)	Operational
00170	170	Saint Lucia (NMC)	Operational
00171	171	Trinidad and Tobago (NMC)	Operational
00172	172	French Departments in RA IV	Operational
00173	173	US National Aeronautics and Space Administration (NASA)	Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00174	174	Integrated System Data Management/Marine Environmental Data Service (ISDM/MEDS - Canada)	Operational
00175	175	Reserved for other centres	Operational
00176	176	U.S. Cooperative Institute for Meteorological Satellite Studies (CIMSS)	Operational
00177-00189	177-189	Reserved for other centres	Operational
00190	190	Cook Islands (NMC)	Operational
00191	191	French Polynesia (NMC)	Operational
00192	192	Tonga (NMC)	Operational
00193	193	Vanuatu (NMC)	Operational
00194	194	Brunei (NMC)	Operational
00195	195	Indonesia (NMC)	Operational
00196	196	Kiribati (NMC)	Operational
00197	197	Federated States of Micronesia (NMC)	Operational
00198	198	New Caledonia (NMC)	Operational
00199	199	Niue	Operational
00200	200	Papua New Guinea (NMC)	Operational
00201	201	Philippines (NMC)	Operational
00202	202	Samoa (NMC)	Operational
00203	203	Solomon Islands (NMC)	Operational
00204	204	National Institute of Water and Atmospheric Research (NIWA – New Zealand)	Operational
00205-00209	205-209	Reserved for other centres	Operational
00210	210	Frascati (ESA/ESRIN)	Operational
00211	211	Lannion	Operational
00212	212	Lisboa	Operational
00213	213	Reykjavik	Operational
00214	214	Madrid	Operational
00215	215	Zürich	Operational
00216	216	Service ARGOS Toulouse	Operational
00217	217	Bratislava	Operational
00218	218	Budapest	Operational
00219	219	Ljubljana	Operational
00220	220	Warsaw	Operational
00221	221	Zagreb	Operational
00222	222	Albania (NMC)	Operational
00223	223	Armenia (NMC)	Operational
00224	224	Austria (NMC)	Operational
00225	225	Azerbaijan (NMC)	Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00226	226	Belarus (NMC)	Operational
00227	227	Belgium (NMC)	Operational
00228	228	Bosnia and Herzegovina (NMC)	Operational
00229	229	Bulgaria (NMC)	Operational
00230	230	Cyprus (NMC)	Operational
00231	231	Estonia (NMC)	Operational
00232	232	Georgia (NMC)	Operational
00233	233	Dublin	Operational
00234	234	Israel (NMC)	Operational
00235	235	Jordan (NMC)	Operational
00236	236	Latvia (NMC)	Operational
00237	237	Lebanon (NMC)	Operational
00238	238	Lithuania (NMC)	Operational
00239	239	Luxembourg	Operational
00240	240	Malta (NMC)	Operational
00241	241	Monaco	Operational
00242	242	Romania (NMC)	Operational
00243	243	Syrian Arab Republic (NMC)	Operational
00244	244	The former Yugoslav Republic of Macedonia (NMC)	Operational
00245	245	Ukraine (NMC)	Operational
00246	246	Republic of Moldova (NMC)	Operational
00247	247	Operational Programme for the Exchange of weather RADar information (OPERA) - EUMETNET	Operational
00248-00249	248-249	Reserved for other centres	Operational
00250	250	COnsortium for Small scale MOdelling (COSMO)	Operational
00251-00253	251-253	Reserved for other centres	Operational
00254	254	EUMETSAT Operation Centre	Operational
00255	255	Not to be used	Operational
00256	256	Angola (NMC)	Operational
00257	257	Benin (NMC)	Operational
00258	258	Botswana (NMC)	Operational
00259	259	Burkina Faso (NMC)	Operational
00260	260	Burundi (NMC)	Operational
00261	261	Cameroon (NMC)	Operational
00262	262	Cape Verde (NMC)	Operational
00263	263	Central African Republic (NMC)	Operational
00264	264	Chad (NMC)	Operational
00265	265	Comoros (NMC)	Operational

CREX Edition 2 B 01 035 (5 characters) and Group 3 in Section 1	GRIB Edition 2 Octets 6-7 in Section 1 BUFR Edition 4 0 01 035 (16 bits) and Octets 5-6 in Section 1		Status
00266	266	Democratic Republic of the Congo (NMC)	Operational
00267	267	Djibouti (NMC)	Operational
00268	268	Eritrea (NMC)	Operational
00269	269	Ethiopia (NMC)	Operational
00270	270	Gabon (NMC)	Operational
00271	271	Gambia (NMC)	Operational
00272	272	Ghana (NMC)	Operational
00273	273	Guinea (NMC)	Operational
00274	274	Guinea Bissau (NMC)	Operational
00275	275	Lesotho (NMC)	Operational
00276	276	Liberia (NMC)	Operational
00277	277	Malawi (NMC)	Operational
00278	278	Mali (NMC)	Operational
00279	279	Mauritania (NMC)	Operational
00280	280	Namibia (NMC)	Operational
00281	281	Nigeria (NMC)	Operational
00282	282	Rwanda (NMC)	Operational
00283	283	Sao Tome and Principe (NMC)	Operational
00284	284	Sierra Leone (NMC)	Operational
00285	285	Somalia (NMC)	Operational
00286	286	Sudan (NMC)	Operational
00287	287	Swaziland (NMC)	Operational
00288	288	Togo (NMC)	Operational
00289	289	Zambia (NMC)	Operational
00290-65534	290-65534	Reserved for other centres	Operational
65535	65535	Missing value	Operational
65536-99999	n.a.	Not used	Operational

Notes:

- (1) The closed bracket sign ) indicates that the corresponding code figure is reserved for the previously named centre.
- (2) n.a. means not applicable.
- (3) With GRIB or BUFR, to indicate whether the originating/generating centre is a sub-centre or not, the following procedure should be applied: Use in GRIB Edition 2 of Octets 8-9, Section 1, or use in BUFR Edition 4 of Octets 7-8, Section 1 with the following meaning:
 

Code figure	
0	Not a sub-centre, the originating/generating centre is the centre defined by Octets 6-7, Section 1 of GRIB Edition 2 or Octets 5-6, Section 1 of BUFR Edition 4.
1 to 254	Identifier of the sub centre which is the originating/generating centre. The identifier of the sub-centre is allocated by the associated centre, which is defined by octets 6-7, Section 1 of GRIB Edition 2 or octets 5-6, Section 1 of BUFR Edition 4. The sub-centre(s) identifiers should be supplied to the WMO Secretariat by the associated centre(s) for publication.
- (4) For Sub-centres definition provided to the WMO Secretariat, see Common table C-12.

**COMMON CODE TABLE C-12:** *Sub-centres of originating centres defined by entries in Common tables C-1 or C-11*

ORIGINATING CENTRES C-1, C-11 or C-12		SUB-CENTRES		
		BUFR 0 01 034 BUFR Edition 3, Octet 5 in Section 1 BUFR Edition 4, Octets 7-8 in Section 1 GRIB Edition 1, Octet 26 in Section 1 GRIB Edition 2, Octets 8-9 in Section 1 CREX Edition 2, ppp in Group Poooooppp in Section 1		
Code figure	Name	Code figure	Name	Status
		0	No sub-centre	Operational
	WMCs			Operational
2	Melbourne	201	Casey	Operational
		203	Davis	Operational
		211	Melbourne Crib Point 1	Operational
		214	Darwin	Operational
		217	Perth	Operational
		219	Townsville	Operational
		232	Fiji	Operational
		235	Noumea	Operational
		237	Papeete	Operational
		250	Vladivostok	Operational
		251	Guam	Operational
		252	Honolulu	Operational
7	US National Weather Service, NCEP	1	NCEP Reanalysis Project	Operational
		2	NCEP Ensemble Products	Operational
		3	NCEP Central Operations	Operational
		4	Environmental Modeling Center	Operational
		5	Hydrometeorological Prediction Center	Operational
		6	Marine Prediction Center	Operational
		7	Climate Prediction Center	Operational
		8	Aviation Weather Center	Operational
		9	Storm Prediction Center	Operational
		10	National Hurricane Center	Operational
		11	NWS Techniques Development Laboratory	Operational
		12	NESDIS Office of Research and	Operational
		13	Federal Aviation Administration	Operational
		14	NWS Meteorological Development Laboratory	Operational
		15	North American Regional Reanalysis	Operational
		16	Space Weather Prediction Center	Operational
	Region II			Operational
34	Tokyo (RSMC), Japan Meteorological Agency	207	Syowa	Operational
		240	Kiyose	Operational
39	Beijing (RSMC)	225	Beijing	Operational

Code figure	Name	Code figure	Name	Status
39	Beijing (RSMC)	226	Guangzhou	Operational
		228	Urumuqi	Operational
40	Seoul	243	Seoul	Operational
		245	Jincheon	Operational
	Region III			Operational
46	Brazilian Space Agency - INPE	10	Cachoeira Paulista (INPE)	Operational
		11	Cuiaba (INPE)	Operational
		12	Brasilia (INMET)	Operational
		13	Fortaleza (FUNCEME)	Operational
		14	Natal (Navy Hygrog. Centre)	Operational
		15	Manaus (SIVAM)	Operational
		16	Natal (INPE)	Operational
		17	Boa Vista	Operational
	Region V			Operational
69	Wellington (RSMC)	243	Kelburn	Operational
72	Singapore	249	Singapore	Operational
	Region VI			Operational
74	UK M.O., Exeter (RSMC)	1	Shanwick Oceanic Area Control Centre	Operational
		2	Fucino	Operational
		3	Gatineau	Operational
		4	Maspalomas	Operational
		5	ESA ERS Central Facility	Operational
		6	Prince Albert	Operational
		7	West Freugh	Operational
		13	Tromso	Operational
		21	Agenzia Spaziale Italiana (Italy)	Operational
		22	Centre National de la Recherche Scientifique (France)	Operational
		23	GeoForschungs Zentrum (Germany)	Operational
		24	Geodetic Observatory Pecny (Czech Republic)	Operational
		25	Institut d'Estudis Espacials de Catalunya (Spain)	Operational
		26	Federal Office of Topography (Switzerland)	Operational
		27	Nordic Commission of Geodesy (Norway)	Operational
		28	Nordic Commission of Geodesy (Sweden)	Operational
		29	Institute Géographique National (France) - Service de géodésie	Operational
		30	Bundesamt für Kartographie und Geodäsie (Germany)	Operational
		31	Institute of Engineering Satellite Surveying and Geodesy (U.K.)	Operational
		32	Joint Operational Meteorology and Oceanography Centre (JOMOC)	Operational
		33	Koninklijk Nederlands Meteorologisch Instituut (Netherlands)	Operational



Code figure	Name	Code figure	Name	Status
74	UK M.O., Exeter (RSMC)	34	Nordic GPS Atmospheric Analysis centre (Sweden)	Operational
		35	Instituto Geografico Nacional de Espana (Spain)	Operational
		36	Met Eireann (Ireland)	Operational
		37	Royal Observatory of Belgium (Belgium)	Operational
	Additional centres			Operational
110	Hong-Kong, China	229	Hong-Kong	Operational
147	COMISION NACIONAL de Actividades Espaciales (CONAE) - Argentina	10	Córdoba	Operational
		15	Ushuaia	Operational
		20	Marambio	Operational
		30	Santiago de Chile	Operational
		40	Punta Arenas	Operational
		50	Base Presidente Frei	Operational
		60	Cotopaxi	Operational
160	U.S. NOAA/NESDIS	10	Tromso (Norway)	Operational
		11	McMurdo (Antarctica)	Operational
161	U.S. NOAA Office of Oceanic and Atmospheric Research	1	Great Lakes Environmental Research Laboratory	Operational
		2	Earth System Research Laboratory	Operational
173	US National Aeronautics and Space Administration (NASA)	1	Ames Research Center	Operational
		2	Dryden Flight Research Center	Operational
		3	Glenn Research Center	Operational
		4	Goddard Space Flight Center	Operational
		5	Jet Propulsion Laboratory	Operational
		6	Johnson Space Center	Operational
		7	Kennedy Space Center	Operational
		8	Langley Research Center	Operational
		9	Marshall Space Flight Center	Operational
		10	Stennis Space Center	Operational
		11	Goddard Institute for Space Studies	Operational
		12	Independent Verification and Validation Facility	Operational
		13	NASA Shared Service Center	Operational
		14	Wallops Flight Facility	Operational
176	U.S. Cooperative Institute for Meteorological Satellite Studies (CIMSS)	10	Tromso (Norway)	Operational
		11	McMurdo (Antarctica)	Operational
		12	Sodankyla (Finland)	Operational
		13	Fairbanks (USA)	Operational
		14	Barrow (USA)	Operational
		15	Rothera (Antarctica)	Operational
204	National Institute of Water and Atmospheric Research (NIWA - New Zealand)	101	Maupia	Operational

Code figure	Name	Code figure	Name	Status
204	National Institute of Water and Atmospheric Research (NIWA - New Zealand)	102	Lauder	Operational
254	EUMETSAT Operation Centre	10	Tromso (Norway)	Operational
		20	Maspalomas (Spain)	Operational
		30	Kangerlussuaq (Greenland)	Operational
		40	Edmonton (Canada)	Operational
		50	Bedford (Canada)	Operational
		60	Gander (Canada)	Operational
		70	Monterey (USA)	Operational
		80	Wallops Island (USA)	Operational
		90	Gilmor Creek (USA)	Operational
		100	Athens (Greece)	Operational
		120	Ewa Beach, Hawaii	Operational
		130	Miami, Florida	Operational
		140	Lannion (France)	Operational
		150	Svalbard (Norway)	Operational
		170	St Denis (La Réunion)	Operational
		180	Moscow	Operational
		190	Muscat	Operational
		200	Khabarovsk	Operational
		210	Novosibirsk	Operational

**COMMON CODE TABLE C-13:** *Data sub-categories of categories defined by entries in BUFR Table A*

DATA CATEGORY		INTERNATIONAL DATA SUB-CATEGORY		
BUFR Edition 4, Octet 11 in Section 1		BUFR Edition 4, Octet 12 (if = 255, it means other sub-category or undefined)		
CREX Edition 2, nnn in Group Annnmmm of Section 1		CREX Edition 2, mmm in Group Annnmmm of Section 1		
Code figure	Name	Code figure	Name	Status
0	Surface data - land	0	Hourly synoptic observations from fixed-land stations (SYNOP)	Operational
		1	Intermediate synoptic observations from fixed-land stations (SYNOP)	Operational
		2	Main synoptic observations from fixed-land stations (SYNOP)	Operational
		3	Hourly synoptic observations from mobile-land stations (SYNOP MOBIL)	Operational
		4	Intermediate synoptic observations from mobile-land stations (SYNOP)	Operational
		5	Main synoptic observations from mobile land stations (SYNOP MOBIL)	Operational
		6	One-hour observations from automated stations	Operational
		7	n-minute observations from AWS	Operational
		10	Routine aeronautical observations (METAR)	Operational
		11	Special aeronautical observations (SPECI)	Operational
		14	Ground-based GPS humidity observations (GPSIWV)	Operational
		20	Climatological observations (CLIMAT)	Operational
		30	Spherics locations (SFLOC)	Operational
		40	Hydrologic reports	Operational
		50	Hourly synoptic observations with supplementary one-hour data	Operational
		51	Intermediate synoptic observations with supplementary one-hour data	Operational
		52	Main synoptic observations with supplementary one-hour data	Operational
1	Surface data - sea	0	Synoptic observations (SHIP)	Operational
		6	One-hour observations from automated stations	Operational
		7	n-minute observations from AWS	Operational
		20	Climatological observations (CLIMAT SHIP)	Operational
		25	Buoy observation (BUOY)	Operational
		30	Tide gauge	Operational
2	Vertical soundings (other than satellite)	31	Observed water level time series	Operational
		1	Upper-wind reports from fixed-land stations (PILOT)	Operational
		2	Upper-wind reports from ships (PILOT SHIP)	Operational
		3	Upper-wind reports from mobile-land stations (PILOT MOBIL)	Operational

Code figure	Name	Code figure	Name	Status
2	Vertical soundings (other than satellite)	4	Upper-level temperature/humidity/wind reports from fixed-land stations (TEMP)	Operational
		5	Upper-level temperature/humidity/wind reports from ships (TEMP SHIP)	Operational
		6	Upper-level temperature/humidity/wind report from mobile-land stations (TEMPMOBIL)	Operational
		7	Upper-level temperature/humidity/wind reports from dropwindsondes (TEMP DROP)	Operational
		10	Wind profiler reports	Operational
		11	RASS temperature profiles	Operational
		20	ASDAR/ACARS profiles (AMDAR)	Operational
		25	Climatological observations from fixed-land stations (CLIMAT TEMP)	Operational
		26	Climatological observations from ships (CLIMAT TEMP SHIP)	Operational
		0	Temperature (SATEM)	Operational
		1	TIROS (TOVS)	Operational
		2	ATOVS	Operational
3	Vertical soundings (satellite)	3	AMSU-A	Operational
		4	AMSU-B	Operational
		5	HIRS	Operational
		6	MHS	Operational
		7	IASI	Operational
		20	<i>IR temperature/humidity sounding</i>	<i>Validation</i>
		30	<i>Hyperspectral temperature/humidity sounding</i>	<i>Validation</i>
		40	<i>MW temperature/humidity sounding</i>	<i>Validation</i>
		50	<i>Radio occultation sounding</i>	<i>Validation</i>
		0	ASDAR/ACARS (AMDAR)	Operational
		1	Manual (AIREP, PIREP)	Operational
		0	Cloud wind data (SATOBS)	Operational
4	Single level upper-air data (other than satellite)		Reflectivity data	Operational
5	Single level upper-air data (satellite)	1	Doppler wind profiles	Operational
6	Radar data	2	Derived products	Operational
		3	Ground radar weather (RADOB)	Operational
		0	Forecast Tropical cyclone tracks from EPS	Operational
7	Synoptic features	1	Squall Line	Operational
8	Physical/chemical constituents	0	Ozone measurement at surface	Operational
		1	Ozone vertical sounding	Operational
9	Dispersal and transport	0	Trajectories, analysis or forecast	Operational
10	Radiological data	1	Observation (RADREP)	Operational
		2	Forecast (RADOF)	Operational
12	Surface data (satellite)	0	ERS-uwa	Operational
		1	ERS-uwj	Operational
		2	ERS-ura	Operational

Code figure	Name	Code figure	Name	Status
12	Surface data (satellite)	3	ERS-uat	Operational
		4	SSM/I radiometer	Operational
		5	Quickscat	Operational
		6	Surface temp./radiation (SATOBS)	Operational
		7	SCAT data	Operational
21	Radiances (satellite measured)	0	Earth radiation budget	Validation
		5	Cross-track infrared sounder	Operational
22	Radar (satellite) but not altimeter and scatterometer	0	Cloud and precipitation radar	Validation
		1	Synthetic Aperture Radar	Validation
23	Lidar (satellite)	0	Lidar based missions (for wind, for cloud/aerosol, for water vapour, for altimetry)	Validation
24	Scatterometry (satellite)		Wind scatterometry	Validation
25	Altimetry (satellite)		Radar altimetry	Validation
26	Spectrometry (satellite)		Cross nadir shortwave spectrometry (for chemistry)	Validation
		1	Cross nadir IR spectrometry (for chemistry)	Validation
		2	Limb sounding shortwave spectrometry	Validation
		3	Limb sounding IR spectrometry	Validation
		4	Limb sounding sub-millimetre wave spectrometry	Validation
27	Gravity measurements (satellite)		To be defined	Validation
28	Precision orbit (satellite)			Validation
29	Space environment (satellite)			Validation
30	Calibration dataset (satellite)			Validation
31	Oceanographic data	0	Surface observation	Operational
		1	Surface observation along track (TRACKOB)	Operational
		2	Spectral wave observation (WAVEOB)	Operational
		3	Bathythermal observation (BATHY)	Operational
		4	Sub-surface floats (profile)	Operational
		5	XBT/XCTD profiles (TESAC)	Operational
		6	Waves reports	Operational
		7	Tsunameter data	Operational
101	Image data (satellite)	0	Multi-purpose VIS/IR imagery	Validation
		1	Conical scanning MW imagery (intermediate frequencies)	Validation
		2	Low frequency MW imagery	Validation
		3	Ocean colour imagery	Validation
		4	Imagery with special viewing geometry	Validation
		5	Lightning imagery	Validation
		6	High resolution shortwave imagery for land observation	Validation
		7	SMOS data	Operational

**COMMON CODE TABLE C-14: Atmospheric chemical or physical constituent type**

Common Code table Code Table 4.230 in GRIB Edition 2

Code figure	Meaning	Chemical	Status
0	Ozone	O <sub>3</sub>	Operational
1	Water vapour	H <sub>2</sub> O	Operational
2	Methane	CH <sub>4</sub>	Operational
3	Carbon dioxide	CO <sub>2</sub>	Operational
4	Carbon monoxide	CO	Operational
5	Nitrogen dioxide	NO <sub>2</sub>	Operational
6	Nitrous oxide	N <sub>2</sub> O	Operational
7	Formaldehyde	HCHO	Operational
8	Sulphur dioxide	SO <sub>2</sub>	Operational
9	Ammonia	NH <sub>3</sub>	Operational
10	Ammonium	NH <sub>4</sub> <sup>+</sup>	Operational
11	Nitrogen monoxide	NO	Operational
12	Atomic oxygen	O	Operational
13	Nitrate radical	NO <sub>3</sub>	Operational
14	Hydroperoxyl radical	HO <sub>2</sub>	Operational
15	Dinitrogen pentoxide	N <sub>2</sub> O <sub>5</sub>	Operational
16	Nitrous acid	HONO	Operational
17	Nitric acid	HNO <sub>3</sub>	Operational
18	Peroxynitric acid	HO <sub>2</sub> NO <sub>2</sub>	Operational
19	Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub>	Operational
20	Molecular hydrogen	H	Operational
21	Atomic nitrogen	N	Operational
22	Sulphate	SO <sub>4</sub> <sup>2-</sup>	Operational
23	Radon	Rn	Operational
24	Elemental mercury	Hg (0)	Operational
25	Divalent mercury	Hg <sub>2</sub> <sup>+</sup>	Operational
26	Atomic chlorine	Cl	Operational
27	Chlorine monoxide	ClO	Operational
28	Dichlorine peroxide	Cl <sub>2</sub> O <sub>2</sub>	Operational
29	Hypochlorous acid	HCIO	Operational
30	Chlorine nitrate	ClONO <sub>2</sub>	Operational
31	Chlorine dioxide	ClO <sub>2</sub>	Operational
32	Atomic bromine	Br	Operational
33	Bromine monoxide	BrO	Operational
34	Bromine chloride	BrCl	Operational
35	Hydrogen bromide	HBr	Operational
36	Hypobromous acid	HBrO	Operational
37	Bromine nitrate	BrONO <sub>2</sub>	Operational
38-9999	Reserved		Operational
10000	Hydroxyl radical	OH	Operational
10001	Methyl peroxy radical	CH <sub>3</sub> O <sub>2</sub>	Operational
10002	Methyl hydroperoxide	CH <sub>3</sub> O <sub>2</sub> H	Operational

Code figure	Meaning	Chemical	Status
10004	Methanol	$\text{CH}_3\text{OH}$	Operational
10005	Formic acid	$\text{CH}_3\text{OOH}$	Operational
10006	Hydrogen Cyanide	$\text{HCN}$	Operational
10007	Aceto nitrile	$\text{CH}_3\text{CN}$	Operational
10008	Ethane	$\text{C}_2\text{H}_6$	Operational
10009	Ethene (= Ethylene)	$\text{C}_2\text{H}_4$	Operational
10010	Ethyne (= Acetylene)	$\text{C}_2\text{H}_2$	Operational
10011	Ethanol	$\text{C}_2\text{H}_5\text{OH}$	Operational
10012	Acetic acid	$\text{C}_2\text{H}_5\text{OOH}$	Operational
10013	Peroxyacetyl nitrate	$\text{CH}_3\text{C}(\text{O})\text{OONO}_2$	Operational
10014	Propane	$\text{C}_3\text{H}_8$	Operational
10015	Propene	$\text{C}_3\text{H}_6$	Operational
10016	Butanes	$\text{C}_4\text{H}_{10}$	Operational
10017	Isoprene	$\text{C}_5\text{H}_{10}$	Operational
10018	Alpha pinene	$\text{C}_{10}\text{H}_{16}$	Operational
10019	Beta pinene	$\text{C}_{10}\text{H}_{16}$	Operational
10020	Limonene	$\text{C}_{10}\text{H}_{16}$	Operational
10021	Benzene	$\text{C}_6\text{H}_6$	Operational
10022	Toluene	$\text{C}_7\text{H}_8$	Operational
10023	Xylene	$\text{C}_8\text{H}_{10}$	Operational
10024-10499	reserved for other simple organic molecules (e.g. higher aldehydes, alcohols, peroxides,...)		Operational
10500	Dimethyl sulphide	$\text{CH}_3\text{SCH}_3$ (DMS)	Operational
10501-20000	Reserved		Operational
20001	Hydrogen chloride		Operational
20002	CFC-11		Operational
20003	CFC-12		Operational
20004	CFC-113		Operational
20005	CFC-113a		Operational
20006	CFC-114		Operational
20007	CFC-115		Operational
20008	HCFC-22		Operational
20009	HCFC-141b		Operational
20010	HCFC-142b		Operational
20011	Halon-1202		Operational
20012	Halon-1211		Operational
20013	Halon-1301		Operational
20014	Halon-2402		Operational
20015	Methyl chloride (HCC-40)		Operational
20016	Carbon tetrachloride (HCC-10)		Operational
20017	HCC-140a	$\text{CH}_3\text{CCl}_3$	Operational
20018	Methyl bromide (HBC-40B1)		Operational
20019	Hexachlorocyclohexane (HCH)		Operational
20020	Alpha hexachlorocyclohexane		Operational
20021	Hexachlorobiphenyl (PCB-153)		Operational

Code figure	Meaning	Chemical	Status
20022-29999	Reserved		Operational
30000-59999	Reserved		Operational
60000	HO <sub>x</sub> radical (OH+HO <sub>2</sub> )		Operational
60001	Total inorganic and organic peroxy radicals (HO <sub>2</sub> +	RO <sub>2</sub>	Operational
60002	Passive Ozone		Operational
60003	NO <sub>x</sub> expressed as nitrogen	NO <sub>x</sub>	Operational
60004	All nitrogen oxides (NO <sub>y</sub> ) expressed as nitrogen	NO <sub>y</sub>	Operational
60005	Total inorganic chlorine	Cl <sub>x</sub>	Operational
60006	Total inorganic bromine	Br <sub>x</sub>	Operational
60007	Total inorganic chlorine except HCl, ClONO <sub>2</sub> : ClO <sub>x</sub>		Operational
60008	Total inorganic bromine except HBr, BrONO <sub>2</sub> : BrO <sub>x</sub>		Operational
60009	Lumped Alkanes		Operational
60010	Lumped Alkenes		Operational
60011	Lumped Aromatic Compounds		Operational
60012	Lumped Terpenes		Operational
60013	Non-methane volatile organic compounds expressed as carbon	NMVOC	Operational
60014	Anthropogenic non-methane volatile organic compounds expressed as carbon	aNMVOC	Operational
60015	Biogenic non-methane volatile organic compounds expressed as carbon	bNMVOC	Operational
60016	Lumped oxygenated hydrocarbons	OVOC	Operational
60017-61999	Reserved		Operational
62000	Total aerosol		Operational
62001	Dust dry		Operational
62002	Water in ambient		Operational
62003	Ammonium dry		Operational
62004	Nitrate dry		Operational
62005	Nitric acid trihydrate		Operational
62006	Sulphate dry		Operational
62007	Mercury dry		Operational
62008	Sea salt dry		Operational
62009	Black carbon dry		Operational
62010	Particulate organic matter dry		Operational
62011	Primary particulate organic matter dry		Operational
62012	Secondary particulate organic matter dry		Operational
62013-65534	Reserved		Operational
65535	Missing		Operational