

# BUFR Reference Manual

Milan Dragosavac

Operations Department

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## 1 Introduction

The Bufr reference Manual is compiled to accompany Bufr User's Guide Manual. It describes the latest Bufr Tables and ECMWF observation types and subtypes. For each subtype there is a template describing the observation.

## 2 BUFR Tables

### 2.1 Bufr Table A

This table contains Bufr categories which shall be packed in the 9th byte of the Section 1.

Code figure	Meaning
0	Surface data - land
1	Surface data - sea
2	Vertical soundings (other than satellite)
3	Vertical soundings (satellite)
4	Single level upper-air data (other than satellite)
5	Single level upper-air data (satellite)
6	Radar data
7	Synoptic features
8	Physical/chemical constituents
9	Dispersal and transport
10	Radiological data
11	Bufr tables, complete replacement or update
12	Surface data (satellite)
13 - 19	Reserved
20	Status information
21	Radiance (satellite measured)
22 - 30	Reserved
31	Oceanographic data
32 - 100	Reserved
101	Image data
102 - 239	Reserved
240 - 254	For experimental use
255	Indicator for local use, with sub-category

## 2.2 Bufr Table B

The latest Bufr Table B version is 13

000001	TABLE A: ENTRY	CCITTIA5	0	0	24
000002	TABLE A: DATA CATEGORY DESCRIPTION, LINE 1	CCITTIA5	0	0	256
000003	TABLE A: DATA CATEGORY DESCRIPTION, LINE 2	CCITTIA5	0	0	256
000004	BUFR/CREX MASTER TABLE	CCITTIA5	0	0	16
000005	BUFR/CREX EDITION NUMBER	CCITTIA5	0	0	24
000006	BUFR MASTER TABLE VERSION NUMBER	CCITTIA5	0	0	16
000007	CREX MASTER TABLE VERSION NUMBER	CCITTIA5	0	0	16
000008	BUFR LOCAL TABLE VERSION NUMBER	CCITTIA5	0	0	16
000010	F DESCRIPTOR TO BE ADDED OR DEFINED	CCITTIA5	0	0	8
000011	X DESCRIPTOR TO BE ADDED OR DEFINED	CCITTIA5	0	0	16
000012	Y DESCRIPTOR TO BE ADDED OR DEFINED	CCITTIA5	0	0	24
000013	ELEMENT NAME, LINE 1	CCITTIA5	0	0	256
000014	ELEMENT NAME, LINE 2	CCITTIA5	0	0	256
000015	UNITS NAME	CCITTIA5	0	0	192
000016	UNITS SCALE SIGN	CCITTIA5	0	0	8
000017	UNITS SCALE	CCITTIA5	0	0	24
000018	UNITS REFERENCE SIGN	CCITTIA5	0	0	8
000019	UNITS REFERENCE VALUE	CCITTIA5	0	0	80
000020	ELEMENT DATA WIDTH	CCITTIA5	0	0	24
000030	DESCRIPTOR DEFINING SEQUENCE	CCITTIA5	0	0	48
001001	WMO BLOCK NUMBER	NUMERIC	0	0	7
001002	WMO STATION NUMBER	NUMERIC	0	0	10
001003	WMO REGION NUMBER/GEOGRAPHICAL AREA	CODE TABLE 1003	0	0	3
001004	WMO REGION SUB-AREA (SEE NOTE 9)	NUMERIC	0	0	3
001005	BUOY/PLATFORM IDENTIFIER	NUMERIC	0	0	17
001006	AIRCRAFT FLIGHT NUMBER	CCITTIA5	0	0	64
001007	SATELLITE IDENTIFIER	CODE TABLE 1007	0	0	10
001008	AIRCRAFT REGISTRATION NUMBER OR OTHER IDENTIFICATION	CCITTIA5	0	0	64
001009	TYPE OF COMMERCIAL AIRCRAFT	CCITTIA5	0	0	64
001010	STATIONARY BUOY PLATFORM IDENTIFIER; E.G. C-MAN BUOYS	CCITTIA5	0	0	64
001011	SHIP OR MOBILE LAND STATION IDENTIFIER	CCITTIA5	0	0	72
001012	DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM**	DEGREE TRUE	0	0	9
001013	SPEED OF MOTION OF MOVING OBSERVING PLATFORM*	M/S	0	0	10
001014	PLATFORM DRIFT SPEED (HIGH PRECISION)	M/S	2	0	10
001015	STATION OR SITE NAME	CCITTIA5	0	0	160
001018	SHORT STATION OR SITE NAME	CCITTIA5	0	0	40
001019	LONG STATION OR SITE NAME	CCITTIA5	0	0	256
001020	WMO REGION SUB-AREA	NUMERIC	0	0	4
001021	SYNOPTIC FEATURE IDENTIFIER	NUMERIC	0	0	14
001022	NAME OF FEATURE (SEE NOTE 11)	CCITTIA5	0	0	224
001023	OBSERVATION SEQUENCE NUMBER	NUMERIC	0	0	9
001025	STORM IDENTIFIER	CCITTIA5	0	0	24
001026	WMO STORM NAME	CCITTIA5	0	0	64
001027	WMO LONG STORM NAME	CCITTIA5	0	0	80
001031	IDENTIFICATION OF ORIGINATING/GENERATING CENTRE (SEE NOTE 10)	CODE TABLE 1031	0	0	16
001032	GENERATING APPLICATION	CODE TABLE 1032	0	0	8
001033	IDENTIFICATION OF ORIGINATING/GENERATING CENTRE	CODE TABLE 1033	0	0	8
001034	IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE	CODE TABLE 1034	0	0	8
001035	ORIGINATING CENTRE	COMMON CODE TABLE C-11	0	0	16
001036	AGENCY IN CHARGE OF OPERATING THE OBSERVING PLATFORM	CODE TABLE 1036	0	0	20
001041	ABSOLUTE PLATFORM VELOCITY - FIRST COMPONENT (SEE NOTE 6)	M/S	5	-1073741824	31
001042	ABSOLUTE PLATFORM VELOCITY - SECOND COMPONENT (SEE NOTE 6)	M/S	5	-1073741824	31
001043	ABSOLUTE PLATFORM VELOCITY - THIRD COMPONENT (SEE NOTE 6)	M/S	5	-1073741824	31
001050	PLATFORM TRANSMITTER ID NUMBER	NUMERIC	0	0	17
001051	PLATFORM TRANSMITTER ID NUMBER	CCITTIA5	0	0	96
001060	AIRCRAFT REPORTING POINT (BEACON IDENTIFIER)	CCITTIA5	0	0	64
001062	SHORT ICAO LOCATION INDICATOR	CCITTIA5	0	0	32
001063	ICAO LOCATION INDICATOR	CCITTIA5	0	0	64
001064	RUNWAY DESIGNATOR	CCITTIA5	0	0	32
001075	TIDE STATION IDENTIFICATION	CCITTIA5	0	0	40
001080	SHIP LINE NUMBER ACCORDING TO SOOP	CCITTIA5	0	0	32
001081	RADIOSONDE SERIAL NUMBER	CCITTIA5	0	0	160
001082	RADIOSONDE ASCENSION NUMBER (SEE NOTE 12)	NUMERIC	0	0	14
001083	RADIOSONDE RELEASE NUMBER (SEE NOTE 12)	NUMERIC	0	0	3
001085	OBSERVING PLATFORM MANUFACTURER'S MODEL	CCITTIA5	0	0	160
001086	OBSERVING PLATFORM MANUFACTURER'S SERIAL NUMBER	CCITTIA5	0	0	256
001087	WMO MARINE OBSERVING PLATFORM EXTENDED IDENTIFIER	NUMERIC	0	0	23
001090	TECHNIQUE FOR MAKING UP INITIAL PERTURBATIONS	CODE TABLE 1090	0	0	8
001091	ENSEMBLE MEMBER NUMBER	NUMERIC	0	0	10
001092	TYPE OF ENSEMBLE FORECAST	CODE TABLE 1092	0	0	8
001093	BALLOON LOT NUMBER	CCITTIA5	0	0	96
001094	WBAN NUMBER	NUMERIC	0	0	17
001095	OBSERVER IDENTIFICATION	CCITTIA5	0	0	32
001096	STATION ACQUISITION	CCITTIA5	0	0	160
002001	TYPE OF STATION	CODE TABLE 2001	0	0	2
002002	TYPE OF INSTRUMENTATION FOR WIND MEASUREMENT	FLAG TABLE 2002	0	0	4
002003	TYPE OF MEASURING EQUIPMENT USED	CODE TABLE 2003	0	0	4
002004	TYPE OF INSTRUMENTATION FOR EVAPORATION MEASUREMENT OR TYPE OF C	CODE TABLE 2004	0	0	4
002005	PRECISION OF TEMPERATURE OBSERVATION	K	2	0	7
002011	RADIOSONDE TYPE	CODE TABLE 2011	0	0	8
002012	RADIOSONDE COMPUTATIONAL METHOD	CODE TABLE 2012	0	0	4
002013	SOLAR AND INFRARED RADIATION CORRECTION	CODE TABLE 2013	0	0	4



002014	TRACKING TECHNIQUE/STATUS OF SYSTEM USED	CODE TABLE 2014	0	0	7
002015	RADIOSONDE COMPLETENESS	CODE TABLE 2015	0	0	4
002016	RADIOSONDE CONFIGURATION	FLAG TABLE 2016	0	0	5
002019	SATELLITE INSTRUMENTS	CODE TABLE 2019	0	0	11
002020	SATELLITE CLASSIFICATION	CODE TABLE 2020	0	0	9
002021	SATELLITE INSTRUMENT DATA USED IN PROCESSING	FLAG TABLE 2021	0	0	9
002022	SATELLITE DATA-PROCESSING TECHNIQUE USED	FLAG TABLE 2022	0	0	8
002023	SATELLITE DERIVED WIND COMPUTATION METHOD	CODE TABLE 2023	0	0	4
002024	INTEGRATED MEAN HUMIDITY COMPUTATIONAL METHOD	CODE TABLE 2024	0	0	4
002025	SATELLITE CHANNEL(S) USED IN COMPUTATION	FLAG TABLE 2025	0	0	25
002026	CROSS TRACK RESOLUTION	M	2	0	12
002027	ALONG TRACK RESOLUTION	M	2	0	12
002028	SEGMENT SIZE AT NADIR IN X DIRECTION	M	0	0	18
002029	SEGMENT SIZE AT NADIR IN Y DIRECTION	M	0	0	18
002030	METHOD OF CURRENT MEASUREMENT	CODE TABLE 2030	0	0	3
002031	DURATION AND TIME OF CURRENT MEASUREMENT	CODE TABLE 2031	0	0	5
002032	INDICATOR FOR DIGITIZATION	CODE TABLE 2032	0	0	2
002033	METHOD OF SALINITY/DEPTH MEASUREMENT	CODE TABLE 2033	0	0	3
002034	DROGUE TYPE	CODE TABLE 2034	0	0	5
002035	CABLE LENGTH	M	0	0	9
002036	BUOY TYPE	CODE TABLE 2036	0	0	2
002037	METHOD OF TIDAL OBSERVATION	CODE TABLE 2037	0	0	3
002038	METHOD OF WATER TEMPERATURE AND/OR SALINITY MEASUREMENT	CODE TABLE 2038	0	0	4
002039	METHOD OF WET-BULB TEMPERATURE MEASUREMENT	CODE TABLE 2039	0	0	3
002040	METHOD OF REMOVING VELOCITY AND MOTION OF PLATFORM FROM CURRENT	CODE TABLE 2040	0	0	4
002041	METHOD FOR ESTIMATING REPORTS RELATED TO SYNOPTIC FEATURES	CODE TABLE 2041	0	0	6
002042	INDICATOR FOR SEA SURFACE CURRENT SPEED	CODE TABLE 2042	0	0	2
002044	INDICATOR FOR METHOD OF CALCULATING SPECTRAL WAVE DATA	CODE TABLE 2044	0	0	4
002045	INDICATOR FOR TYPE OF PLATFORM	CODE TABLE 2045	0	0	4
002046	WAVE MEASUREMENT INSTRUMENTATION	CODE TABLE 2046	0	0	4
002048	SATELLITE SENSOR INDICATOR	CODE TABLE 2048	0	0	4
002049	GEOSTATIONARY SATELLITE DATA-PROCESSING TECHNIQUE USED	FLAG TABLE 2049	0	0	8
002050	GEOSTATIONARY SOUNDER SATELLITE CHANNELS USED	FLAG TABLE 2050	0	0	20
002051	INDICATOR TO SPECIFY OBSERVING METHOD FOR EXTREME TEMPERATURES	CODE TABLE 2051	0	0	4
002052	GEOSTATIONARY IMAGER SATELLITE CHANNELS USED	FLAG TABLE 2052	0	0	6
002053	GOES-I/M BRIGHTNESS TEMPERATURE CHARACTERISTICS	CODE TABLE 2053	0	0	4
002054	GOES-I/M SOUNDINGS PARAMETER CHARACTERISTICS	CODE TABLE 2054	0	0	4
002055	GEOSTATIONARY SOUNDINGS STATISTICAL PARAMETERS	CODE TABLE 2055	0	0	4
002056	GEOSTATIONARY SOUNDINGS ACCURACY STATISTICS	CODE TABLE 2056	0	0	4
002057	ORIGIN OF FIRST GUESS INFORMATION FOR GOES-I/M SOUNDINGS	CODE TABLE 2057	0	0	4
002058	VALID TIMES OF FIRST GUESS INFORMATION FOR GOES-I/M SOUNDINGS	CODE TABLE 2058	0	0	4
002059	ORIGIN OF ANALYSIS INFORMATION FOR GOES-I/M SOUNDINGS	CODE TABLE 2059	0	0	4
002060	ORIGIN OF SURFACE INFORMATION FOR GOES-I/M SOUNDINGS	CODE TABLE 2060	0	0	4
002061	AIRCRAFT NAVIGATIONAL SYSTEM	CODE TABLE 2061	0	0	3
002062	TYPE OF AIRCRAFT DATA RELAY SYSTEM	CODE TABLE 2062	0	0	4
002063	AIRCRAFT ROLL ANGLE	DEGREE	2	-18000	16
002064	AIRCRAFT ROLL ANGLE QUALITY	CODE TABLE 2064	0	0	2
002065	ACARS GROUND RECEIVING STATION	CCITTIA5	0	0	40
002066	RADIOSONDE GROUND RECEIVING SYSTEM	CODE TABLE 2066	0	0	6
002067	RADIOSONDE OPERATING FREQUENCY	Hz	-5	0	15
002070	ORIGINAL SPECIFICATION OF LATITUDE/LONGITUDE	CODE TABLE 2070	0	0	4
002080	BALLOON MANUFACTURER	CODE TABLE 2080	0	0	6
002081	TYPE OF BALLOON	CODE TABLE 2081	0	0	5
002082	WEIGHT OF BALLOON	KG	3	0	12
002083	TYPE OF BALLOON SHELTER	CODE TABLE 2083	0	0	4
002084	TYPE OF GAS USED IN BALLOON	CODE TABLE 2084	0	0	4
002085	AMOUNT OF GAS USED IN BALLOON	KG	3	0	13
002086	BALLOON FLIGHT TRAIN LENGTH	M	1	0	10
002091	ENTRY SENSOR 4/20 MA	A	4	0	10
002095	TYPE OF PRESSURE SENSOR	CODE TABLE 2095	0	0	5
002096	TYPE OF TEMPERATURE SENSOR	CODE TABLE 2096	0	0	5
002097	TYPE OF HUMIDITY SENSOR	CODE TABLE 2097	0	0	5
002100	RADAR CONSTANT	dB	1	0	12
002101	TYPE OF ANTENNA	CODE TABLE 2101	0	0	4
002102	ANTENNA HEIGHT ABOVE TOWER BASE	M	0	0	8
002103	RADOME	FLAG TABLE 2103	0	0	2
002104	ANTENNA POLARISATION	CODE TABLE 2104	0	0	4
002105	MAXIMUM ANTENNA GAIN	dB	0	0	6
002106	3-DB BEAMWIDTH	DEGREE	1	0	6
002107	SIDELobe SUPPRESSION	dB	0	0	6
002108	CROSSPOL DISCRIMINATION (ON AXIS)	dB	0	0	6
002109	ANTENNA SPEED (AZIMUTH)	DEGREE/S	2	0	12
002110	ANTENNA SPEED (ELEVATION)	DEGREE/S	2	0	12
002111	RADAR INCIDENCE ANGLE	DEGREE	1	0	10
002112	RADAR LOOK ANGLE	DEGREE	1	0	12
002113	NUMBER OF AZIMUTH LOOKS	NUMERIC	0	0	4
002114	ANTENNA EFFECTIVE SURFACE AREA	M**2	0	0	15
002115	TYPE OF SURFACE OBSERVING EQUIPMENT	CODE TABLE 2115	0	0	5
002116	PERCENTAGE OF 320 MHZ BAND PROCESSED	%	0	0	7
002117	PERCENTAGE OF 80 MHZ BAND PROCESSED	%	0	0	7
002118	PERCENTAGE OF 20 MHZ BAND PROCESSED	%	0	0	7
002119	RA-2 INSTRUMENT OPERATIONS	CODE TABLE 2119	0	0	3
002120	OCEAN WAVE FREQUENCY	Hz	3	0	10
002121	MEAN FREQUENCY	Hz	-8	0	7
002122	FREQUENCY AGILITY RANGE	Hz	-6	-128	8
002123	PEAK POWER	W	-4	0	7
002124	AVERAGE POWER	W	-1	0	7
002125	PULSE REPETITION FREQUENCY	Hz	-1	0	8
002126	PULSE WIDTH	S	7	0	6
002127	RECEIVER INTERMEDIATE FREQUENCY	Hz	-6	0	7
002128	INTERMEDIATE FREQUENCY BANDWIDTH	Hz	-5	0	6
002129	MINIMUM DETECTABLE SIGNAL	dB	0	-150	5
002130	DYNAMIC RANGE	dB	0	0	7

002131 SENSITIVITY TIME CONTROL (STC)	FLAG TABLE 2131	0	0	2
002132 AZIMUTH POINTING ACCURACY	DEGREE	2	0	6
002133 ELEVATION POINTING ACCURACY	DEGREE	2	0	6
002134 ANTENNA BEAM AZIMUTH	DEGREE	2	0	16
002135 ANTENNA ELEVATION	DEGREE	2	-9000	15
002136 RANGE PROCESSED BY RANGE ATTENUATION CORRECTION	M	-3	0	16
002140 SATELLITE RADAR BEAM AZIMUTH ANGLE	DEGREE	0	0	9
002141 MEASUREMENT TYPE	CCITTIA5	0	0	24
002142 OZONE INSTRUMENT SERIAL NUMBER/ IDENTIFICATION	CCITTIA5	0	0	32
002143 OZONE INSTRUMENT TYPE	CODE TABLE 2143	0	0	7
002144 LIGHT SOURCE TYPE FOR BREWER SPECTRO PHOTOMETER	CODE TABLE 2144	0	0	4
002145 WAVE LENGTH SETTING FOR DOBSON INSTRUMENTS	CODE TABLE 2145	0	0	4
002146 SOURCE CONDITIONS FOR DOBSON INSTRUMENTS	CODE TABLE 2146	0	0	4
002148 DATA COLLECTION AND/OR LOCATION SYSTEM	CODE TABLE 2148	0	0	5
002149 TYPE OF DATA BUOY	CODE TABLE 2149	0	0	6
002150 TOVS/ATOVS/AVHRR INSTRUMENTATION CHANNEL NUMBER	CODE TABLE 2150	0	0	6
002151 RADIOMETER IDENTIFIER	CODE TABLE 2151	0	0	11
002152 SATELLITE INSTRUMENT USED IN DATA PROCESSING(6)	FLAG TABLE 2152	0	0	31
002153 SATELLITE CHANNEL CENTRE FREQUENCY	Hz	-8	0	26
002154 SATELLITE CHANNEL BAND WIDTH	Hz	-8	0	26
002156 PERCENTAGE OF VALID KU OCEAN RETRACKER MEASUREMENTS	%	0	0	7
002157 PERCENTAGE OF VALID S OCEAN RETRACKER MEASUREMENTS	%	0	0	7
002158 RA-2 INSTRUMENT	FLAG TABLE 2158	0	0	9
002159 MWR INSTRUMENT	FLAG TABLE 2159	0	0	8
002160 WAVE LENGTH OF THE RADAR	CODE TABLE 2160	0	0	4
002163 HEIGHT ASSIGNMENT METHOD	CODE TABLE 2163	0	0	4
002164 TRACER CORRELATION METHOD	CODE TABLE 2164	0	0	3
002166 RADIANCE TYPE	CODE TABLE 2166	0	0	4
002167 RADIANCE COMPUTATIONAL METHOD	CODE TABLE 2167	0	0	4
002168 HYDROSTATIC PRESSURE OF LOWER END OF CABLE (THERMISTOR STRING)	PA	-3	0	16
002169 ANEMOMETER TYPE	CODE TABLE 2169	0	0	4
002172 PRODUCT TYPE FOR RETRIEVED ATMOSPHERIC GASES	CODE TABLE 2172	0	0	8
002173 SQUARE OF THE OFF NADIR ANGLE (7)	DEGREE2	4	0	10
002174 MEAN ACROSS TRACK PIXEL NUMBER	NUMERIC	0	0	9
002175 METHOD OF PRECIPITATION MEASUREMENT	CODE TABLE 2175	0	0	4
002176 METHOD OF STATE OF GROUND MEASUREMENT	CODE TABLE 2176	0	0	4
002177 METHOD OF SNOW DEPTH MEASUREMENT	CODE TABLE 2177	0	0	4
002178 METHOD OF LIQUID CONTENT MEASUREMENT OF PRECIPITATION	CODE TABLE 2178	0	0	4
002179 TYPE OF SKY CONDITION ALGORITHM	CODE TABLE 2179	0	0	4
002180 MAIN PRESENT WEATHER DETECTING SYSTEM	CODE TABLE 2180	0	0	4
002181 SUPPLEMENTARY PRESENT WEATHER SENSOR	FLAG TABLE 2181	0	0	21
002182 VISIBILITY MEASUREMENT SYSTEM	CODE TABLE 2182	0	0	4
002183 CLOUD DETECTION SYSTEM	CODE TABLE 2183	0	0	4
002184 TYPE OF LIGHTNING DETECTION SENSOR	CODE TABLE 2184	0	0	4
002185 METHOD OF EVAPORATION MEASUREMENT	CODE TABLE 2185	0	0	4
002186 CAPABILITY TO DETECT PRECIPITATION PHENOMENA	FLAG TABLE 2186	0	0	30
002187 CAPABILITY TO DETECT OTHER WEATHER PHENOMENA	FLAG TABLE 2187	0	0	18
002188 CAPABILITY TO DETECT OBSCURATION	FLAG TABLE 2188	0	0	21
002189 CAPABILITY TO DISCRIMINATE LIGHTNING STRIKES	FLAG TABLE 2189	0	0	12
002190 LAGRANGIAN DRIFTER SUBMERGENCE (% TIME SUBMERGED)	%	0	0	7
004001 YEAR	YEAR	0	0	12
004002 MONTH	MONTH	0	0	4
004003 DAY	DAY	0	0	6
004004 HOUR	HOUR	0	0	5
004005 MINUTE	MINUTE	0	0	6
004006 SECOND	SECOND	0	0	6
004007 SECONDS WITHIN A MINUTE (MICROSECOND ACCURACY)	SECOND	6	0	26
004011 TIME INCREMENT	YEAR	0	-1024	11
004012 TIME INCREMENT	MONTH	0	-1024	11
004013 TIME INCREMENT	DAY	0	-1024	11
004014 TIME INCREMENT	HOUR	0	-1024	11
004015 TIME INCREMENT	MINUTE	0	-2048	12
004016 TIME INCREMENT	SECOND	0	-4096	13
004017 REFERENCE TIME PERIOD FOR ACCUMULATED OR EXTREME DATA	MINUTE	0	-1440	12
004021 TIME PERIOD OR DISPLACEMENT	YEAR	0	-1024	11
004022 TIME PERIOD OR DISPLACEMENT	MONTH	0	-1024	11
004023 TIME PERIOD OR DISPLACEMENT	DAY	0	-1024	11
004024 TIME PERIOD OR DISPLACEMENT	HOUR	0	-2048	12
004025 TIME PERIOD OR DISPLACEMENT	MINUTE	0	-2048	12
004026 TIME PERIOD OR DISPLACEMENT	SECOND	0	-4096	13
004031 DURATION OF TIME RELATING TO FOLLOWING VALUE	HOUR	0	0	8
004032 DURATION OF TIME RELATING TO FOLLOWING VALUE	MINUTE	0	0	6
004041 TIME DIFFERENCE, UTC -LMT (SEE NOTE 6)	MINUTE	0	-1440	12
004043 DAY OF THE YEAR	DAY	0	0	9
004051 PRINCIPAL TIME OF DAILY READING OF MAXIMUM TEMPERATURE	HOUR	0	0	5
004052 PRINCIPAL TIME OF DAILY READING OF MINIMUM TEMPERATURE	HOUR	0	0	5
004053 NUMBER OF DAYS WITH PRECIPITATION EQUAL TO OR MORE THAN 1 MM	NUMERIC	0	0	6
004059 TIMES OF OBSERVATION USED TO COMPUTE THE REPORTED MEAN VALUES	FLAG TABLE 4059	0	0	6
004065 SHORT TIME INCREMENT	MINUTE	0	-128	8
004073 SHORT TIME PERIOD OR DISPLACEMENT	DAY	0	-128	8
004074 SHORT TIME PERIOD OR DISPLACEMENT	HOUR	0	-128	8
004075 SHORT TIME PERIOD OR DISPLACEMENT	MINUTE	0	-128	8
004080 AVERAGING PERIOD FOR FOLLOWING VALUE	CODE TABLE 4080	0	0	4
004086 LONG TIME PERIOD OR DISPLACEMENT	SECOND	0	-8192	15
005001 LATITUDE (HIGH ACCURACY)	DEGREE	5	-9000000	25
005002 LATITUDE (COARSE ACCURACY)	DEGREE	2	-9000	15
005011 LATITUDE INCREMENT (HIGH ACCURACY)	DEGREE	5	-9000000	25
005012 LATITUDE INCREMENT (COARSE ACCURACY)	DEGREE	2	-9000	15
005015 LATITUDE DISPLACEMENT (HIGH ACCURACY)	DEGREE	5	-9000000	25
005016 LATITUDE DISPLACEMENT (COARSE ACCURACY)	DEGREE	2	-9000	15
005021 BEARING OR AZIMUTH	DEGREE TRUE	2	0	16
005022 SOLAR AZIMUTH	DEGREE TRUE	2	0	16
005023 SUN TO SATELLITE AZIMUTH DIFFERENCE	DEGREE	1	-1800	12

005030	DIRECTION (SPECTRAL)	DEGREE	0	0	12
005031	ROW NUMBER	NUMERIC	0	0	12
005033	PIXEL SIZE ON HORIZONTAL - 1	M	-1	0	16
005034	ALONG TRACK ROW NUMBER	NUMERIC	0	0	11
005036	SHIP TRANSECT NUMBER ACCORDING TO SOOP	NUMERIC	0	0	7
005040	ORBIT NUMBER	NUMERIC	0	0	24
005041	SCAN LINE NUMBER	NUMERIC	0	0	8
005042	CHANNEL NUMBER	NUMERIC	0	0	6
005043	FIELD OF VIEW NUMBER	NUMERIC	0	0	8
005044	SATELLITE CYCLE NUMBER	NUMERIC	0	0	11
005052	CHANNEL NUMBER INCREMENT	NUMERIC	0	0	5
005053	FIELD OF VIEW NUMBER INCREMENT	NUMERIC	0	0	5
005060	Y ANGULAR POSITION FROM CENTRE OF GRAVITY	DEGREE	6	-8000000	24
005061	Z ANGULAR POSITION FROM CENTRE OF GRAVITY	DEGREE	6	-8000000	24
006001	LONGITUDE (HIGH ACCURACY)	DEGREE	5	-18000000	26
006002	LONGITUDE (COARSE ACCURACY)	DEGREE	2	-18000	16
006011	LONGITUDE INCREMENT (HIGH ACCURACY)	DEGREE	5	-18000000	26
006012	LONGITUDE INCREMENT (COARSE ACCURACY)	DEGREE	2	-18000	16
006015	LONGITUDE DISPLACEMENT (HIGH ACCURACY)	DEGREE	5	-18000000	26
006016	LONGITUDE DISPLACEMENT (COARSE ACCURACY)	DEGREE	2	-18000	16
006021	DISTANCE	M	-1	0	13
006030	WAVE NUMBER (SPECTRAL)	RAD/M	5	0	13
006031	COLUMN NUMBER	NUMERIC	0	0	12
006033	PIXEL SIZE ON HORIZONTAL - 2	M	-1	0	16
006034	CROSS-TRACK CELL NUMBER	NUMERIC	0	0	7
006040	RADIUS OF CONFIDENCE	M	0	0	13
007001	HEIGHT OF STATION (SEE NOTE 1)	M	0	-400	15
007002	HEIGHT OR ALTITUDE	M	-1	-40	16
007003	GEOPOTENTIAL	M**2/S**2	-1	-400	17
007004	PRESSURE	PA	-1	0	14
007005	HEIGHT INCREMENT	M	0	-400	12
007006	HEIGHT ABOVE STATION	M	0	0	15
007007	HEIGHT	M	0	-1000	17
007008	GEOPOTENTIAL	M**2/S**2	0	-10000	20
007009	GEOPOTENTIAL HEIGHT	GPM	0	-1000	17
007010	FLIGHT LEVEL	M	0	-1024	16
007021	ELEVATION (SEE NOTE 2)	DEGREE	2	-9000	15
007022	SOLAR ELEVATION	DEGREE	2	-9000	15
007024	SATELLITE ZENITH ANGLE	DEGREE	2	-9000	15
007025	SOLAR ZENITH ANGLE	DEGREE	2	-9000	15
007026	SATELLITE ZENITH ANGLE	DEGREE	4	-900000	21
007030	HEIGHT OF STATION GROUND ABOVE MEAN SEA LEVEL (SEE NOTE 3)	M	1	- 4000	17
007031	HEIGHT OF BAROMETER ABOVE MEAN SEA LEVEL (SEE NOTE 4)	M	1	- 4000	17
007032	HEIGHT OF SENSOR ABOVE LOCAL GROUND (OR DECK OF MARINE PLATFORM)	M	2	0	16
007033	HEIGHT OF SENSOR ABOVE WATER SURFACE (SEE NOTE 6)	M	1	0	12
007040	IMPACT PARAMETER (SEE NOTE 8)	M	1	62000000	22
007061	DEPTH BELOW LAND SURFACE	M	2	0	14
007062	DEPTH BELOW SEA/WATER SURFACE	M	1	0	17
007063	DEPTH BELOW SEA/WATER SURFACE	M	2	0	20
007064	REPRESENTATIVE HEIGHT OF SENSOR ABOVE STATION (SEE NOTE 7)	M	0	0	4
007065	WATER PRESSURE	PA	-3	0	17
007070	DROGUE DEPTH	M	0	0	10
008001	VERTICAL SOUNDING SIGNIFICANCE	FLAG TABLE 8001	0	0	7
008002	VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)	CODE TABLE 8002	0	0	6
008003	VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)	CODE TABLE 8003	0	0	6
008004	PHASE OF AIRCRAFT FLIGHT	CODE TABLE 8004	0	0	3
008005	METEOROLOGICAL ATTRIBUTE SIGNIFICANCE	CODE TABLE 8005	0	0	4
008006	OZONE VERTICAL SOUNDING SIGNIFICANCE	FLAG TABLE 8006	0	0	9
008007	DIMENSIONAL SIGNIFICANCE	CODE TABLE 8007	0	0	4
008008	RADIATION VERTICAL SOUNDING SIGNIFICANCE	FLAG TABLE 8008	0	0	9
008009	DETAILED PHASE OF FLIGHT	CODE TABLE 8009	0	0	4
008010	SURFACE QUALIFIER (TEMPERATURE DATA)	CODE TABLE 8010	0	0	5
008011	METEOROLOGICAL FEATURE	CODE TABLE 8011	0	0	6
008012	LAND/SEA QUALIFIER	CODE TABLE 8012	0	0	2
008013	DAY/NIGHT QUALIFIER	CODE TABLE 8013	0	0	2
008014	QUALIFIER FOR RUNWAY VISUAL RANGE	CODE TABLE 8014	0	0	4
008016	CHANGE QUALIFIER OF A TREND-TYPE FORECAST OR AN AERODROME FORECA	CODE TABLE 8016	0	0	3
008017	QUALIFIER OF THE TIME WHEN THE FORECAST CHANGE IS EXPECTED	CODE TABLE 8017	0	0	2
008018	SEAWINDS LAND/ICE SURFACE TYPE	FLAG TABLE 8018	0	0	17
008020	TOTAL NUMBER OF MISSING ENTITIES (WITH RESPECT TO ACCUMULATION O	NUMERIC	0	0	16
008021	TIME SIGNIFICANCE	CODE TABLE 8021	0	0	5
008022	TOTAL NUMBER (WITH RESPECT TO ACCUMULATION OR AVERAGE)	NUMERIC	0	0	16
008023	FIRST ORDER STATISTICS	CODE TABLE 8023	0	0	6
008024	DIFFERENCE STATISTICS	CODE TABLE 8024	0	0	6
008025	TIME DIFFERENCE QUALIFIER	CODE TABLE 8025	0	0	4
008029	REMOTELY SENSED SURFACE TYPE	CODE TABLE 8029	0	0	8
008030	MANUAL ON CODES (VOLUME I.1, SECTION C) CODE TABLE FROM WHICH DA	NUMERIC	0	0	13
008031	DATA CATEGORY CREX TABLE A	NUMERIC	0	0	8
008033	METHOD OF DERIVATION OF PERCENTAGE CONFIDENCE	CODE TABLE 8033	0	0	7
008035	TYPE OF MONITORING EXERCISE	CODE TABLE 8035	0	0	3
008036	TYPE OF CENTRE OR STATION PERFORMING MONITORING	CODE TABLE 8036	0	0	3
008039	TIME SIGNIFICANCE ( AVIATION FORECAST)	CODE TABLE 8039	0	0	6
008040	FLIGHT LEVEL SIGNIFICANCE	CODE TABLE 8040	0	0	6
008041	DATA SIGNIFICANCE	CODE TABLE 8041	0	0	5
008042	EXTENDED VERTICAL SOUNDING SIGNIFICANCE	FLAG TABLE 8042	0	0	18
008049	NUMBER OF OBSERVATIONS	NUMERIC	0	0	8
008050	QUALIFIER FOR NUMBER OF MISSING VALUES IN CALCULATION OF STATIST	CODE TABLE 8050	0	0	4
008051	QUALIFIER FOR NUMBER OF MISSING VALUES IN CALCULATION OF STATIST	CODE TABLE 8051	0	0	3
008052	CONDITION FOR WHICH NUMBER OF DAYS OF OCCURRENCE FOLLOWS	CODE TABLE 8052	0	0	5
008053	DAY OF OCCURRENCE QUALIFIER	CODE TABLE 8053	0	0	2
008054	QUALIFIER FOR WIND SPEED OR WIND GUST	CODE TABLE 8054	0	0	3
008060	SAMPLE SCANNING MODE SIGNIFICANCE	CODE TABLE 8060	0	0	4
008065	SUN-GLINT INDICATOR	CODE TABLE 8065	0	0	2

008066	SEMI-TRANSPARENCY INDICATOR	CODE TABLE 8066	0	0	2
008070	TOVS/ATOVS PRODUCT QUALIFIER	CODE TABLE 8070	0	0	4
008072	PIXEL(S) TYPE	CODE TABLE 8072	0	0	3
008074	ALTIMETER ECHO TYPE	CODE TABLE 8074	0	0	2
008075	ASCENDING/DSCENDING ORBIT QUALIFIER	CODE TABLE 8075	0	0	2
008076	TYPE OF BAND	CODE TABLE 8076	0	0	6
008079	AVIATION PRODUCT STATUS	CODE TABLE 8079	0	0	4
008080	QUALIFIER FOR GTSSPP QUALITY FLAG	CODE TABLE 8080	0	0	6
008081	TYPE OF EQUIPMENT	CODE TABLE 8081	0	0	6
008082	(CBS) ARTIFICIAL CORRECTION OF SENSOR HEIGHT TO ANOTHER VALUE	CODE TABLE 8082	0	0	3
008083	NOMINAL VALUE INDICATOR	FLAG TABLE 8083	0	0	15
008085	BEAM IDENTIFIER	CODE TABLE 8085	0	0	3
010001	HEIGHT OF LAND SURFACE	M	0	-400	15
010002	HEIGHT	M	-1	-40	16
010003	GEOPOTENTIAL	M**2/S**2	-1	-400	17
010004	PRESSURE	PA	-1	0	14
010007	HEIGHT	M	0	-1000	17
010008	GEOPOTENTIAL	M**2/S**2	0	-10000	20
010009	GEOPOTENTIAL HEIGHT	GPM	0	-1000	17
010010	MINIMUM PRESSURE REDUCED TO MEAN SEA LEVEL	PA	-1	0	14
010011	MAXIMUM PRESSURE REDUCED TO MEAN SEA LEVEL	PA	-1	0	14
010031	IN DIRECTION OF THE NORTH POLE, DISTANCE FROM THE EARTH'S CENTRE	M	2	-1073741824	31
010032	SATELLITE DISTANCE TO EARTH'S CENTRE	M	1	0	27
010033	ALTITUDE (PLATFORM TO ELLIPSOID)	M	1	0	27
010034	EARTH RADIUS	M	1	0	27
010035	EARTH'S LOCAL RADIUS OF CURVATURE	M	1	62000000	22
010036	GEOID UNDULATION (SEE NOTE 4)	M	2	-15000	15
010040	NUMBER OF RETRIEVED LAYERS	NUMERIC	0	0	10
010050	STANDARD DEVIATION ALTITUDE	M	2	0	16
010051	PRESSURE REDUCED TO MEAN SEA LEVEL	PA	-1	0	14
010052	ALTIMETER SETTING (QNH)	PA	-1	0	14
010060	PRESSURE CHANGE	PA	-1	-1024	11
010061	3-HOUR PRESSURE CHANGE	PA	-1	-500	10
010062	24-HOUR PRESSURE CHANGE	PA	-1	-1000	11
010063	CHARACTERISTIC OF PRESSURE TENDENCY	CODE TABLE 10063	0	0	4
010070	INDICATED AIRCRAFT ALTITUDE	M	0	-400	16
010080	VIEWING ZENITH ANGLE	DEGREE	2	-9000	15
010081	ALTITUDE OF COG ABOVE REFERENCE ELLIPSOID	M	3	0	31
010082	INSTANTANEOUS ALTITUDE RATE	MS-1	3	-65536	17
010083	SQUARED OFF NADIR ANGLE OF THE SATELLITE FROM PLATFORM DATA	DEGREE2	2	0	16
010084	SQUARED OFF NADIR ANGLE OF THE SATELLITE FROM WAVEFORM DATA	DEGREE2	2	0	16
010085	MEAN SEA SURFACE HEIGHT	M	3	-131072	18
010086	GEOID'S HEIGHT	M	3	-131072	18
010087	OCEAN DEPTH/LAND ELEVATION	M	1	-131072	18
010088	TOTAL GEOCENTRIC OCEAN TIDE HEIGHT SOLUTION 1	M	3	-32768	16
010089	TOTAL GEOCENTRIC OCEAN TIDE HEIGHT SOLUTION 2	M	3	-32768	16
010090	LONG PERIOD TIDE HEIGHT	M	3	-32768	16
010091	TIDAL LOADING HEIGHT	M	3	-32768	16
010092	SOLID EARTH TIDE HEIGHT	M	3	-32768	16
010093	GEOCENTRIC POLE TIDE HEIGHT	M	3	-32768	16
010095	HEIGHT OF ATMOSPHERE USED	M	0	0	16
011001	WIND DIRECTION	DEGREE TRUE	0	0	9
011002	WIND SPEED	M/S	1	0	12
011003	U-COMPONENT	M/S	1	-4096	13
011004	V-COMPONENT	M/S	1	-4096	13
011005	W-COMPONENT	PA/S	1	-512	10
011006	W-COMPONENT	M/S	2	-4096	13
011010	WIND DIRECTION ASSOCIATED WITH WIND SPEED WHICH FOLLOWS	DEGREE TRUE	0	0	9
011011	WIND DIRECTION AT 10 M	DEGREE TRUE	0	0	9
011012	WIND SPEED AT 10 M	M/S	1	0	12
011013	WIND DIRECTION AT 5 M	DEGREE TRUE	0	0	9
011014	WIND SPEED AT 5 M	M/S	1	0	12
011016	EXTREME COUNTERCLOCKWISE WIND DIRECTION OF A VARIABLE WIND	DEGREE TRUE	0	0	9
011017	EXTREME CLOCKWISE WIND DIRECTION OF A VARIABLE WIND	DEGREE TRUE	0	0	9
011019	STEADINESS OF WIND (6)	%	0	0	7
011021	RELATIVE VORTICITY	1/S	9	-65536	17
011022	DIVERGENCE	1/S	9	-65536	17
011023	VELOCITY POTENTIAL	M**2/S	-2	-65536	17
011030	EXTENDED DEGREE OF TURBULENCE	CODE TABLE 11030	0	0	6
011031	DEGREE OF TURBULENCE	CODE TABLE 11031	0	0	4
011032	HEIGHT OF BASE OF TURBULENCE	M	-1	-40	16
011033	HEIGHT OF TOP OF TURBULENCE	M	-1	-40	16
011034	VERTICAL GUST VELOCITY	M/S	1	-1024	11
011035	VERTICAL GUST ACCELERATION	M/S**2	2	-8192	14
011036	MAXIMUM DERIVED EQUIVALENT VERTICAL GUST SPEED	M/S	1	0	10
011037	TURBULENCE INDEX	CODE TABLE 11037	0	0	6
011038	TIME OF OCCURRENCE OF PEAK EDDY DISSIPATION RATE	CODE TABLE 11038	0	0	5
011039	EXTENDED TIME OF OCCURRENCE OF PEAK EDDY DISSIPATION RATE	CODE TABLE 11039	0	0	6
011040	MAXIMUM WIND SPEED (MEAN WIND)	M/S	1	0	12
011041	MAXIMUM WIND GUST SPEED	M/S	1	0	12
011042	MAXIMUM WIND SPEED (10-MIN MEAN WIND)	M/S	1	0	12
011043	MAXIMUM WIND GUST DIRECTION	DEGREE TRUE	0	0	9
011044	MEAN WIND DIRECTION FOR SURFACE - 1500 M (5000 FEET)	DEGREE TRUE	0	0	9
011045	MEAN WIND SPEED FOR SURFACE - 1500 M (5000 FEET)	M/S	1	0	12
011046	MAXIMUM INSTANTANEOUS WIND SPEED	M/S	1	0	12
011047	MAXIMUM INSTANTANEOUS WIND SPEED OVER 10 MINUTES	M/S	1	0	12
011049	STANDARD DEVIATION OF WIND DIRECTION	DEGREE TRUE	0	0	9
011050	STANDARD DEVIATION OF HORIZONTAL WIND SPEED	M/S	1	0	12
011051	STANDARD DEVIATION OF VERTICAL WIND SPEED	M/S	1	0	8
011052	FORMAL UNCERTAINTY IN WIND SPEED	M/S	2	0	13
011053	FORMAL UNCERTAINTY IN WIND DIRECTION	DEGREE TRUE	2	0	15
011054	MEAN WIND DIRECTION FOR 1500 M - 3000 M	DEGREE TRUE	0	0	9
011055	MEAN WIND SPEED FOR 1500 M - 3000 M	M/S	1	0	12

011061	ABSOLUTE WIND SHEAR IN 1 KM LAYER BELOW	M/S	1	0	12
011062	ABSOLUTE WIND SHEAR IN 1 KM LAYER ABOVE	M/S	1	0	12
011070	DESIGNATOR OF THE RUNWAY AFFECTED BY WIND SHEAR (INCLUDING ALL)	CCITTIA5	0	0	32
011071	TURBULENT VERTICAL MOMENTUM FLUX	M**2/S**2	3	-128	14
011072	TURBULENT VERTICAL BUOYANCY FLUX	KM/S	3	-128	11
011073	TURBULENT KINETIC ENERGY	M**2/S**2	2	-1024	13
011074	DISSIPATION ENERGY	M**2/S**2	2	-1024	10
011075	MEAN TURBULENCE INTENSITY (EDDY DISSIPATION RATE)	M** (2/3) /S	2	0	8
011076	PEAK TURBULENCE INTENSITY (EDDY DISSIPATION RATE)	M** (2/3) /S	2	0	8
011077	REPORTING INTERVAL OR AVERAGING TIME FOR EDDY DISSIPATION RATE	S	0	0	12
011081	MODEL WIND DIRECTION AT 10M	DEGREE TRUE	2	0	16
011082	MODEL WIND SPEED AT 10M	M/S	2	0	14
011083	WIND SPEED	KM/HOUR	0	0	9
011084	WIND SPEED	KNOT	0	0	8
011085	MAXIMUM WIND GUST SPEED	KM/HOUR	0	0	9
011086	MAXIMUM WIND GUST SPEED	KNOT	0	0	8
011095	U COMPONENT OF THE MODEL WIND VECTOR	M/S	1	-4096	13
011096	V COMPONENT OF THE MODEL WIND VECTOR	M/S	1	-4096	13
011192	U - COMPONENT AT 10 M	M/S	1	-4096	13
012001	TEMPERATURE/DRY-BULB TEMPERATURE	K	1	0	12
012002	WET-BULB TEMPERATURE	K	1	0	12
012003	DEW-POINT TEMPERATURE	K	1	0	12
012004	DRY-BULB TEMPERATURE AT 2 M	K	1	0	12
012005	WET-BULB TEMPERATURE AT 2 M	K	1	0	12
012006	DEW-POINT TEMPERATURE AT 2 M	K	1	0	12
012007	VIRTUAL TEMPERATURE	K	1	0	12
012011	MAXIMUM TEMPERATURE, AT HEIGHT AND OVER PERIOD SPECIFIED	K	1	0	12
012012	MINIMUM TEMPERATURE, AT HEIGHT AND OVER PERIOD SPECIFIED	K	1	0	12
012013	GROUND MINIMUM TEMPERATURE, PAST 12 HOURS	K	1	0	12
012014	MAXIMUM TEMPERATURE AT 2 M, PAST 12 HOURS	K	1	0	12
012015	MINIMUM TEMPERATURE AT 2 M, PAST 12 HOURS	K	1	0	12
012016	MAXIMUM TEMPERATURE AT 2 M, PAST 24 HOURS	K	1	0	12
012017	MINIMUM TEMPERATURE AT 2 M, PAST 24 HOURS	K	1	0	12
012021	MAXIMUM TEMPERATURE AT 2M	K	2	0	16
012022	MINIMUM TEMPERATURE AT 2M	K	2	0	16
012023	TEMPERATURE	C	0	-99	8
012024	DEW POINT TEMPERATURE	C	0	-99	8
012030	SOIL TEMPERATURE	K	1	0	12
012049	Temperature change over specified period	K	0	-30	6
012051	STANDARD DEVIATION TEMPERATURE	K	1	0	10
012052	HIGHEST DAILY MEAN TEMPERATURE	K	1	0	12
012053	LOWEST DAILY MEAN TEMPERATURE	K	1	0	12
012061	SKIN TEMPERATURE	K	1	0	12
012062	EQUIVALENT BLACK BODY TEMPERATURE	K	1	0	12
012063	BRIGHTNESS TEMPERATURE	K	1	0	12
012064	INSTRUMENT TEMPERATURE	K	1	0	12
012065	STANDARD DEVIATION BRIGHTNESS TEMPERATURE	K	1	0	12
012070	WARM LOAD TEMPERATURE	K	2	0	16
012071	COLDEST CLUSTER TEMPERATURE	K	1	0	12
012072	RADIANCE	WM**(-2) SR**(-1)	6	0	31
012073	TEMPERATURE	K	2	0	16
012075	SPECTRAL RADIANCE	WM**(-3) SR**(-1)	-3	0	16
012076	RADIANCE	WM**(-2) SR**(-1)	3	0	16
012101	TEMPERATURE/DRY-BULB TEMPERATURE	K	2	0	16
012102	WET-BULB TEMPERATURE	K	2	0	16
012103	DEW-POINT TEMPERATURE	K	2	0	16
012104	DRY-BULB TEMPERATURE AT 2M	K	2	0	16
012105	WET-BULB TEMPERATURE AT 2M	K	2	0	16
012106	DEW-POINT TEMPERATURE AT 2M	K	2	0	16
012107	VIRTUAL TEMPERATURE	K	2	0	16
012111	MAXIMUM TEMPERATURE, AT HEIGHT AND OVER PERIOD SPECIFIED	K	2	0	16
012112	MINIMUM TEMPERATURE, AT HEIGHT AND OVER PERIOD SPECIFIED	K	2	0	16
012113	GROUND MINIMUM TEMPERATURE, PAST 12 HOURS	K	2	0	16
012114	MAXIMUM TEMPERATURE AT 2M, PAST 12 HOURS	K	2	0	16
012115	MINIMUM TEMPERATURE AT 2M, PAST 12 HOURS	K	2	0	16
012116	MAXIMUM TEMPERATURE AT 2M, PAST 24 HOURS	K	2	0	16
012117	MINIMUM TEMPERATURE AT 2M, PAST 24 HOURS	K	2	0	16
012118	MAXIMUM TEMPERATURE AT HEIGHT SPECIFIED, PAST 24 HOURS	K	2	0	16
012119	MINIMUM TEMPERATURE AT HEIGHT SPECIFIED, PAST 24 HOURS	K	2	0	16
012121	GROUND MINIMUM TEMPERATURE	K	2	0	16
012122	GROUND MINIMUM TEMPERATURE OF THE PRECEDING NIGHT	K	2	0	16
012130	SOIL TEMPERATURE	K	2	0	16
012151	STANDARD DEVIATION OF DAILY MEAN TEMPERATURE	K	2	0	12
012152	HIGHEST DAILY MEAN TEMPERATURE	K	2	0	16
012153	LOWEST DAILY MEAN TEMPERATURE	K	2	0	16
012161	SKIN TEMPERATURE	K	2	0	16
012162	EQUIVALENT BLACK BODY TEMPERATURE	K	2	0	16
012163	BRIGHTNESS TEMPERATURE	K	2	0	16
012164	INSTRUMENT TEMPERATURE	K	2	0	16
012171	COLDEST CLUSTER TEMPERATURE	K	2	0	16
012180	AVERAGED 12 MICRON BT FOR ALL CLEAR PIXELS AT NADIR	K	2	0	16
012181	AVERAGED 11 MICRON BT FOR ALL CLEAR PIXELS AT NADIR	K	2	0	16
012182	AVERAGED 3.7 MICRON BT FOR ALL CLEAR PIXELS AT NADIR	K	2	0	16
012183	AVERAGED 12 MICRON BT FOR ALL CLEAR PIXELS, FORWARD VIEW	K	2	0	16
012184	AVERAGED 11 MICRON BT FOR ALL CLEAR PIXELS, FORWARD VIEW	K	2	0	16
012185	AVERAGED 3.7 MICRON BT FOR ALL CLEAR PIXELS, FORWARD VIEW	K	2	0	16
012186	MEAN NADIR SEA SURFACE TEMPERATURE	K	2	0	16
012187	MEAN DUAL VIEW SEA SURFACE TEMPERATURE	K	2	0	16
012188	INTERPOLATED 23.8 GHZ BRIGHTNESS T FROM MWR	K	2	0	16
012189	INTERPOLATED 36.5 GHZ BRIGHTNESS T FROM MWR	K	2	0	16
013001	SPECIFIC HUMIDITY	KG/KG	5	0	14
013002	MIXING RATIO	KG/KG	5	0	14
013003	RELATIVE HUMIDITY	%	0	0	7

013004	VAPOUR PRESSURE	PA	-1	0	10
013005	VAPOUR DENSITY	KG/M**3	3	0	7
013006	MIXING HEIGHTS	M	-1	-40	16
013007	MINIMUM RELATIVE HUMIDITY	%	0	0	7
013008	MAXIMUM RELATIVE HUMIDITY	%	0	0	7
013009	RELATIVE HUMIDITY	%	1	-1000	12
013011	TOTAL PRECIPITATION/TOTAL WATER EQUIVALENT	KG/M**2	1	-1	14
013012	DEPTH OF FRESH SNOW	M	2	-2	12
013013	TOTAL SNOW DEPTH	M	2	-2	16
013014	RAINFALL/WATER EQUIVALENT OF SNOW (AVERAGED RATE)	KG/(M**2) S	4	0	12
013015	SNOWFALL (AVERAGED RATE)	M/S	7	0	12
013016	PRECIPITABLE WATER	KG/M**2	0	0	7
013019	TOTAL PRECIPITATION PAST 1 HOUR	KG/M**2	1	-1	14
013020	TOTAL PRECIPITATION PAST 3 HOURS	KG/M**2	1	-1	14
013021	TOTAL PRECIPITATION PAST 6 HOURS	KG/M**2	1	-1	14
013022	TOTAL PRECIPITATION PAST 12 HOURS	KG/M**2	1	-1	14
013023	TOTAL PRECIPITATION PAST 24 HOURS	KG/M**2	1	-1	14
013031	EVAPOTRANSPIRATION	KG/M**2	0	0	7
013032	EVAPORATION/EVAPOTRANSPIRATION	KG/M**2	1	0	8
013033	EVAPORATION/EVAPOTRANSPIRATION	KG/M**2	1	0	10
013038	SUPERADIABATIC INDICATOR	CODE TABLE 13038	0	0	2
013039	TERRAIN TYPE (ICE/SNOW)	CODE TABLE 13039	0	0	3
013040	SURFACE FLAG	CODE TABLE 13040	0	0	4
013041	PASQUILL-GIFFORD STABILITY CATEGORY	CODE TABLE 13041	0	0	4
013042	PARCEL LIFTED INDEX (TO 500 HPA)	K	0	-20	6
013043	BEST LIFTED INDEX (TO 500 HPA)	K	0	-20	6
013044	K INDEX	K	0	-30	8
013045	KO INDEX	K	0	-30	8
013046	MAXIMUM BUOYANCY	K	0	-30	8
013047	MODIFIED SHOWALTER STABILITY INDEX	K	0	-60	6
013051	FREQUENCY GROUP, PRECIPITATION	CODE TABLE 13051	0	0	4
013052	HIGHEST DAILY AMOUNT OF PRECIPITATION	KG/M**2	1	-1	14
013055	INTENSITY OF PRECIPITATION	KG/(M**2) S	4	0	8
013056	CHARACTER AND INTENSITY OF PRECIPITATION	CODE TABLE 13056	0	0	4
013057	TIME OF BEGINNING OR END OF PRECIPITATION	CODE TABLE 13057	0	0	4
013058	SIZE OF PRECIPITATING ELEMENT	M	4	0	7
013059	NUMBER OF FLASHES (THUNDERSTORM)	NUMERIC	0	0	7
013060	TOTAL ACCUMULATED PRECIPITATION	KG/M**2	1	-1	17
013071	UPSTREAM WATER LEVEL	M	2	0	14
013072	DOWNSTREAM WATER LEVEL	M	2	0	14
013073	MAXIMUM WATER LEVEL	M	2	0	14
013080	WATER PH	pH	1	0	10
013081	WATER CONDUCTIVITY	S M-1	3	0	14
013082	WATER TEMPERATURE	K	1	0	12
013083	DISSOLVED OXYGEN	KG/M**3	6	0	15
013084	TURBIDITY	LUMEN	0	0	14
013085	OXYDATION REDUCTION POTENTIAL (ORP)	V	3	0	14
013090	RADIOMETER WATER VAPOUR CONTENT	KG/M**2	1	0	10
013091	RADIOMETER LIQUID CONTENT	KG/M**2	2	0	8
013093	CLOUD OPTICAL THICKNESS	NUMERIC	0	0	8
013095	TOTAL COLUMN WATER VAPOUR	KG/M**2	4	0	19
013096	MWR WATER VAPOUR CONTENT	KG/M**2	2	0	14
013097	MWR LIQUID WATER CONTENT	KG/M**2	2	0	14
013098	INTEGRATED WATER VAPOUR DENSITY	KG/M**2	8	0	30
013192	RELATIVE HUMIDITY AT 2 M	%	0	0	8
014001	LONG-WAVE RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-3	-2048	12
014002	LONG-WAVE RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-3	-2048	12
014003	SHORT-WAVE RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-3	-2048	12
014004	SHORT-WAVE RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-3	-2048	12
014011	NET LONG-WAVE RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-3	-2048	12
014012	NET LONG-WAVE RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-3	-2048	12
014013	NET SHORT-WAVE RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-3	-2048	12
014014	NET SHORT-WAVE RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-3	-2048	12
014015	NET RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-4	-16384	15
014016	NET RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-4	-16384	15
014017	INSTANTANEOUS LONG-WAVE RADIATION (SEE NOTE 6)	W/M**2	-3	-2048	12
014018	INSTANTANEOUS SHORT-WAVE RADIATION (SEE NOTE 6)	W/M**2	-3	-2048	12
014019	SURFACE ALBEDO	%	0	0	7
014020	GLOBAL SOLAR RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-4	0	15
014021	GLOBAL SOLAR RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-4	0	15
014022	DIFFUSE SOLAR RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-4	0	15
014023	DIFFUSE SOLAR RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-4	0	15
014024	DIRECT SOLAR RADIATION, INTEGRATED OVER 24 HOURS	J/M**2	-4	0	15
014025	DIRECT SOLAR RADIATION, INTEGRATED OVER PERIOD SPECIFIED	J/M**2	-4	0	15
014026	ALBEDO AT THE TOP OF CLOUDS	%	0	0	7
014027	ALBEDO	%	0	0	7
014028	GLOBAL SOLAR RADIATION (HIGH ACCURACY), INTEGRATED OVER PERIOD S	J/M**2	-2	0	16
014029	DIFFUSE SOLAR RADIATION (HIGH ACCURACY), INTEGRATED OVER PERIOD	J/M**2	-2	0	16
014030	DIRECT SOLAR RADIATION (HIGH ACCURACY), INTEGRATED OVER PERIOD S	J/M**2	-2	0	16
014031	TOTAL SUNSHINE	MINUTE	0	0	11
014032	TOTAL SUNSHINE	HOURL	0	0	10
014033	TOTAL SUNSHINE	%	0	0	9
014034	SUNSHINE OVER PERIOD SPECIFIED	MINUTE	0	0	11
014042	BI-DIRECTIONAL REFLECTANCE	%	0	0	7
014045	CHANNEL RADIANCE	(W/M**2) * (1/SR) * CM	0	0	11
014046	SCALED IASI RADIANCE	(W/M**2) * (1/SR) * (1/M)	0	-5000	16
014047	SCALED MEAN AVHRR RADIANCE	(W/M**2) * (1/SR) * (1/M)	0	0	31
014048	SCALED STANDARD DEVIATION RADIANCE	(W/M**2) * (1/SR) * (1/M)	0	0	31
014050	EMISSIONIVITY (SEE NOTE 5)	%	1	0	10
014051	DIRECT SOLAR RADIATION INTEGRATED OVER LAST HOUR	J/M**2	-3	0	14
014055	SOLAR ACTIVITY INDEX	NUMERIC	0	-32768	16
014061	(VAL) INSTANTANEOUS LONG-WAVE RADIATION	W/M**2	0	-512	10
014062	(VAL) INSTANTANEOUS SHORT-WAVE RADIATION	W/M**2	0	-2048	12

015001	TOTAL OZONE	DU	0	0	10
015002	AIR MASS (SLANT PATH AT 22 KM)	NUMERIC	2	0	10
015003	MEASURED OZONE PARTIAL PRESSURE (SOUNDING)	PA	4	0	9
015004	OZONE SOUNDING CORRECTION FACTOR	NUMERIC	3	0	11
015005	OZONE P	DU	0	0	10
015011	LOG 10 OF INTEGRATED ELECTRON DENSITY	LOG (1/M2)	3	14000	13
015015	MAXIMUM IMAGE SPECTRAL COMPONENT BEFORE NORMALIZATION	NUMERIC	0	0	31
015020	INTEGRATED O3 DENSITY	KG/M**2	8	0	21
015025	TYPE OF POLLUTANT	CODE TABLE 15025	0	0	4
015026	CONCENTRATION OF POLLUTANT	MOLMOL-1	9	0	9
015027	CONCENTRATION OF POLLUTANT	KG/M3	9	0	10
015030	AEROSOL CONTAMINATION INDEX	NUMERIC	2	-1000	12
015031	ATMOSPHERIC PATH DELAY IN SATELLITE SIGNAL	M	4	10000	15
015032	ESTIMATED ERROR IN ATMOSPHERIC PATH DELAY	M	4	0	10
015033	DIFFERENCE IN PATH DELAYS FOR LIMB VIEWS AT EXTREMES OF SCAN	M	5	-10000	15
015034	ESTIMATED ERROR IN PATH DELAY DIFFERENCE	M	5	0	14
015035	COMPONENT OF ZENITH PATH DELAY DUE TO WATER VAPOUR	M	4	0	14
015036	ATMOSPHERIC REFRACTIVITY (SEE NOTE 5)	N-UNITS	3	0	19
015037	BENDING ANGLE	RADIANS	8	-100000	23
019001	TYPE OF SYNOPTIC FEATURE	CODE TABLE 19001	0	0	6
019002	EFFECTIVE RADIUS OF FEATURE	M	-2	0	12
019003	WIND SPEED THRESHOLD	M/S	0	0	8
019004	EFFECTIVE RADIUS WITH RESPECT TO WIND SPEEDS ABOVE THRESHOLD	M	-2	0	12
019005	DIRECTION OF MOTION OF FEATURE	DEGREE TRUE	0	0	9
019006	SPEED OF MOTION OF FEATURE	M/S	2	0	14
019007	EFFECTIVE RADIUS OF FEATURE	M	-3	0	12
019008	VERTICAL EXTENT OF CIRCULATION	CODE TABLE 19008	0	0	3
019009	EFFECTIVE RADIUS WITH RESPECT TO WIND SPEEDS ABOVE THRESHOLD (LA	M	-3	0	12
019010	METHOD FOR TRACKING THE CENTRE OF SYNOPTIC FEATURE	CODE TABLE 19010	0	0	4
019100	TIME INTERVAL TO CALCULATE THE MOVEMENT OF THE TROPICAL CYCLONE	CODE TABLE 19100	0	0	4
019101	ACCURACY OF THE POSITION OF THE CENTRE OF THE TROPICAL CYCLONE	CODE TABLE 19101	0	0	4
019102	SHAPE AND DEFINITION OF THE EYE OF THE TROPICAL CYCLONE	CODE TABLE 19102	0	0	3
019103	DIAMETER OF MAJOR AXIS OF THE EYE OF THE TROPICAL CYCLONE	CODE TABLE 19103	0	0	4
019104	CHANGE IN CHARACTER OF THE EYE DURING THE 30 MINUTES	CODE TABLE 19104	0	0	4
019105	DISTANCE BETWEEN THE END OF SPIRAL BAND AND THE CENTRE	CODE TABLE 19105	0	0	4
019106	IDENTIFICATION NUMBER OF TROPICAL CYCLONE	NUMERIC	0	0	7
019107	TIME INTERVAL OF THE TROPICAL CYCLONE ANALYSIS	CODE TABLE 19107	0	0	4
019108	ACCURACY OF GEOGRAPHICAL POSITION OF THE TROPICAL CYCLONE	CODE TABLE 19108	0	0	3
019109	MEAN DIAMETER OF THE OVERCAST CLOUD OF THE TROPICAL CYCLONE	CODE TABLE 19109	0	0	4
019110	APPARENT 24-HOUR CHANGE IN INTENSITY OF TROPICAL CYCLONE	CODE TABLE 19110	0	0	4
019111	CURRENT INTENSITY (CI) NUMBER OF THE TROPICAL CYCLONE	NUMERIC	1	0	7
019112	DATA TROPICAL (DT) NUMBER OF THE TROPICAL CYCLONE	NUMERIC	1	0	7
019113	CLOUD PATTERN TYPE OF THE DT- NUMBER	CODE TABLE 19113	0	0	4
019114	MODEL EXPECTED TROPICAL (MET) NUMBER OF THE TROPICAL CYCLONE	NUMERIC	1	0	7
019115	TREND OF PAST 24-HOUR CHANGE (+: DEVELOPED, -: WEAKENED)	NUMERIC	1	-30	6
019116	PATTERN TROPICAL (PT) NUMBER OF THE TROPICAL CYCLONE	NUMERIC	1	0	7
019117	CLOUD PICTURE TYPE OF THE PT- NUMBER	CODE TABLE 19117	0	0	3
019118	FINAL TROPICAL (T) NUMBER OF THE TROPICAL CYCLONE	NUMERIC	1	0	7
019119	TYPE OF THE FINAL T-NUMBER	CODE TABLE 19119	0	0	3
019150	TYPHOON INTERNATIONAL COMMON NUMBER (TYPHOON COMMITTEE)	CCITTIA5	0	0	32
020001	HORIZONTAL VISIBILITY	M	-1	0	13
020002	VERTICAL VISIBILITY	M	-1	0	7
020003	PRESENT WEATHER (SEE NOTE 1)	CODE TABLE 20003	0	0	9
020004	PAST WEATHER (1) (SEE NOTE 2)	CODE TABLE 20004	0	0	5
020005	PAST WEATHER (2) (SEE NOTE 2)	CODE TABLE 20005	0	0	5
020008	CLOUD DISTRIBUTION FOR AVIATION	CODE TABLE 20008	0	0	5
020009	GENERAL WEATHER INDICATOR (TAF/METAR)	CODE TABLE 20009	0	0	4
020010	CLOUD COVER (TOTAL)	%	0	0	7
020011	CLOUD AMOUNT	CODE TABLE 20011	0	0	4
020012	CLOUD TYPE	CODE TABLE 20012	0	0	6
020013	HEIGHT OF BASE OF CLOUD	M	-1	-40	11
020014	HEIGHT OF TOP OF CLOUD	M	-1	-40	11
020015	PRESSURE AT BASE OF CLOUD	PA	-1	0	14
020016	PRESSURE AT TOP OF CLOUD	PA	-1	0	14
020017	CLOUD TOP DESCRIPTION	CODE TABLE 20017	0	0	4
020018	TENDENCY OF RUNWAY VISUAL RANGE	CODE TABLE 20018	0	0	2
020019	SIGNIFICANT PRESENT OR FORECAST WEATHER	CCITTIA5	0	0	72
020020	SIGNIFICANT RECENT WEATHER PHENOMENA	CCITTIA5	0	0	32
020021	TYPE OF PRECIPITATION	FLAG TABLE 20021	0	0	30
020022	CHARACTER OF PRECIPITATION	CODE TABLE 20022	0	0	4
020023	OTHER WEATHER PHENOMENA	FLAG TABLE 20023	0	0	18
020024	INTENSITY OF PHENOMENA	CODE TABLE 20024	0	0	3
020025	OBSCURATION	FLAG TABLE 20025	0	0	21
020026	CHARACTER OF OBSCURATION	CODE TABLE 20026	0	0	4
020027	PHENOMENA OCCURRENCE	FLAG TABLE 20027	0	0	9
020029	RAIN FLAG	CODE TABLE 20029	0	0	2
020031	ICE DEPOSIT (THICKNESS)	M	2	0	7
020032	RATE OF ICE ACCRETION	CODE TABLE 20032	0	0	3
020033	CAUSE OF ICE ACCRETION	FLAG TABLE 20033	0	0	4
020034	SEA ICE CONCENTRATION	CODE TABLE 20034	0	0	5
020035	AMOUNT AND TYPE OF ICE	CODE TABLE 20035	0	0	4
020036	ICE SITUATION	CODE TABLE 20036	0	0	5
020037	ICE DEVELOPMENT	CODE TABLE 20037	0	0	5
020038	BEARING OF ICE EDGE (SEE NOTE 3)	DEGREE TRUE	0	0	12
020039	ICE DISTANCE	M	-1	0	13
020040	EVOLUTION OF DRIFT OF SNOW	CODE TABLE 20040	0	0	4
020041	AIRFRAME ICING	CODE TABLE 20041	0	0	4
020042	AIRFRAME ICING PRESENT	CODE TABLE 20042	0	0	2
020043	PEAK LIQUID WATER CONTENT	KG/M**3	4	0	7
020044	AVERAGE LIQUID WATER CONTENT	KG/M**3	4	0	7
020045	SUPERCOOLED LARGE DROPLET (SLD) CONDITIONS	CODE TABLE 20045	0	0	2
020050	CLOUD INDEX	CODE TABLE 20050	0	0	8
020051	AMOUNT OF LOW CLOUDS	%	0	0	7

020052	AMOUNT OF MIDDLE CLOUDS	%	0	0	7
020053	AMOUNT OF HIGH CLOUDS	%	0	0	7
020054	TRUE DIRECTION FROM WHICH CLOUDS ARE MOVING	DEGREE TRUE	0	0	9
020055	STATE OF SKY IN TROPICS	CODE TABLE 20055	0	0	4
020056	CLOUD PHASE	CODE TABLE 20056	0	0	3
020059	MINIMUM HORIZONTAL VISIBILITY	M	-1	0	9
020060	PREVAILING HORIZONTAL VISIBILITY	M	-1	0	10
020061	RUNWAY VISUAL RANGE (RVR)	M	0	0	12
020062	STATE OF THE GROUND (WITH OR WITHOUT SNOW)	CODE TABLE 20062	0	0	5
020063	SPECIAL PHENOMENA	CODE TABLE 20063	0	0	10
020065	SNOW COVER (SEE NOTE 4)	%	0	0	7
020066	MAXIMUM DIAMETER OF HAILSTONES	M	3	0	8
020067	DIAMETER OF DEPOSIT	M	3	0	9
020070	MINIMUM NUMBER OF ATMOSPHERICS	NUMERIC	0	0	7
020071	ACCURACY OF FIX AND RATE OF ATMOSPHERICS	CODE TABLE 20071	0	0	4
020081	CLOUD AMOUNT IN SEGMENT	%	0	0	7
020082	AMOUNT SEGMENT CLOUD FREE	%	0	0	7
020083	AMOUNT OF SEGMENT COVERED BY SCENE	%	0	0	7
020085	GENERAL CONDITION OF RUNWAY	CODE TABLE 20085	0	0	4
020086	RANWAY DEPOSITS	CODE TABLE 20086	0	0	4
020087	RUNWAY CONTAMINATION	CODE TABLE 20087	0	0	4
020088	DEPTH OF RANWAY DEPOSITS	M	3	0	12
020089	RUNWAY FRICTION COEFFICIENT	CODE TABLE 20089	0	0	7
020090	SPECIAL CLOUDS	CODE TABLE 20090	0	0	4
020091	VERTICAL VISIBILITY	FEET	-2	0	10
020092	HEIGHT OF BASE OF CLOUD	FEET	-2	0	10
020095	ICE PROBABILITY	NUMERIC	3	0	10
020096	ICE AGE ("A" PARAMETER)	dB	2	-4096	13
020101	LOCUST (ACRIDIAN) NAME	CODE TABLE 20101	0	0	4
020102	LOCUST (MATURITY) COLOR	CODE TABLE 20102	0	0	4
020103	STAGE OF DEVELOPMENT OF LOCUSTS	CODE TABLE 20103	0	0	4
020104	ORGANIZATION STATE OF SWARM OR BAND OF LOCUSTS	CODE TABLE 20104	0	0	4
020105	SIZE OF SWARM OR BAND OF LOCUSTS AND DURATION OF PASSAGE OF SWARM	CODE TABLE 20105	0	0	4
020106	LOCUST POPULATION DENSITY	CODE TABLE 20106	0	0	4
020107	DIRECTION OF MOVEMENTS OF LOCUST SWARM	CODE TABLE 20107	0	0	4
020108	EXTENT OF VEGETATION	CODE TABLE 20108	0	0	4
020192	SPECIAL PHENOMENA	CODE TABLE 20192	0	0	14
021001	HORIZONTAL REFLECTIVITY	dB	0	-64	7
021002	VERTICAL REFLECTIVITY	dB	0	-64	7
021003	DIFFERENTIAL REFLECTIVITY	dB	1	-5	7
021005	LINEAR DEPOLARISATION RATIO	dB	0	-65	6
021006	CIRCULAR DEPOLARISATION RATIO	dB	0	-65	6
021011	DOPPLER MEAN VELOCITY IN X-DIRECTION	M/S	0	-128	8
021012	DOPPLER MEAN VELOCITY IN Y-DIRECTION	M/S	0	-128	8
021013	DOPPLER MEAN VELOCITY IN Z-DIRECTION	M/S	0	-128	8
021014	DOPPLER MEAN VELOCITY (RADIAL)	M/S	1	-4096	13
021017	DOPPLER VELOCITY SPECTRAL WIDTH	M/S	1	0	8
021021	ECHO TOPS	M	-3	0	4
021030	SIGNAL TO NOISE RATIO	dB	0	-32	8
021031	VERTICALLY INTEGRATED LIQUID-WATER CONTENT	KG/M**2	0	0	7
021036	RADAR RAINFALL INTENSITY	M/S	7	0	12
021041	BRIGHT-BAND HEIGHT	M	-2	0	8
021051	SIGNAL POWER ABOVE 1 MW	dB	0	-256	8
021062	BACKSCATTER	dB	2	-5000	13
021063	RADIOMETRIC RESOLUTION (NOISE VALUE)	%	1	0	10
021064	CLUTTER NOISE ESTIMATE	NUMERIC	0	0	8
021065	MISSING PACKET COUNTER	NUMERIC	0	-127	8
021066	WAVE SCATTEROMETER PRODUCT CONFIDENCE DATA	FLAG TABLE 21066	0	0	12
021067	WIND PRODUCT CONFIDENCE DATA	FLAG TABLE 21067	0	0	13
021068	RADAR ALTIMETER PRODUCT CONFIDENCE DATA	FLAG TABLE 21068	0	0	8
021069	SST PRODUCT CONFIDENCE DATA	FLAG TABLE 21069	0	0	10
021070	SST PRODUCT CONFIDENCE DATA (SADIST-2)	FLAG TABLE 21070	0	0	23
021071	PEAKINESS	NUMERIC	0	0	16
021072	SATELLITE ALTIMETER CALIBRATION STATUS	FLAG TABLE 21072	0	0	4
021073	SATELLITE ALTIMETER INSTRUMENT MODE	FLAG TABLE 21073	0	0	9
021075	IMAGE SPECTRUM INTENSITY	NUMERIC	0	0	8
021076	REPRESENTATION OF INTENSITIES	CODE TABLE 21076	0	0	3
021077	ALTITUDE CORRECTION (IONOSPHERE)	M	3	0	14
021078	ALTITUDE CORRECTION (DRY TROPOSPHERE)	M	3	0	9
021079	ALTITUDE CORRECTION (WET TROPOSPHERE)	M	3	2000	10
021080	ALTITUDE CORRECTION (CALIBRATION CONSTANT)	M	3	0	11
021081	OPEN LOOP CORRECTION (HEIGHT-TIME LOOP)	M	3	0	10
021082	OPEN LOOP CORRECTION (AUTO GAIN CONTROL)	dB	3	-3000	14
021083	WARM TARGET CALIBRATION	NUMERIC	0	0	16
021084	COLD TARGET CALIBRATION	NUMERIC	0	0	16
021085	ATSR SEA SURFACE TEMPERATURE ACROSS- TRACK BAND NUMBER	NUMERIC	0	0	4
021086	NUMBER OF PIXELS IN NADIR ONLY, AVERAGE	NUMERIC	0	0	9
021087	NUMBER OF PIXELS IN DUAL VIEW, AVERAGE	NUMERIC	0	0	9
021088	WET BACKSCATTER	dB	2	-5000	13
021091	RADAR SIGNAL DOPPLER SPECTRUM 0TH MOMENT	dB	0	-100	8
021092	RASS SIGNAL DOPPLER SPECTRUM 0TH MOMENT, REFERRING TO RASS SIGNAL	dB	0	-100	8
021093	Ku BAND PEAKINESS	NUMERIC	3	0	16
021094	S BAND PEAKINESS	NUMERIC	3	0	16
021101	NUMBER OF VECTOR AMBIGUITIES	NUMERIC	0	0	3
021102	INDEX OF SELECTED WIND VECTOR	NUMERIC	0	0	3
021103	TOTAL NUMBER OF SIGMA-0 MEASUREMENTS	NUMERIC	0	0	5
021104	LIKELIHOOD COMPUTED FOR SOLUTION	NUMERIC	3	-30000	15
021105	NORMALIZED RADAR CROSS-SECTION	dB	2	-10000	14
021106	KP VARIANCE COEFFICIENT (ALPHA)	NUMERIC	3	0	14
021107	KP VARIANCE COEFFICIENT (BETA)	NUMERIC	8	0	16
021109	SEAWINDS WIND VECTOR CELL QUALITY	FLAG TABLE 21109	0	0	17
021110	NUMBER OF INNER-BEAM SIGMA-0 (FORWARD OF SATELLITE)	NUMERIC	0	0	6
021111	NUMBER OF OUTER-BEAM SIGMA-0 (FORWARD OF SATELLITE)	NUMERIC	0	0	6



021112	NUMBER OF INNER-BEAM SIGMA-0 (AFT OF SATELLITE)	NUMERIC	0	0	6
021113	NUMBER OF OUTER-BEAM SIGMA-0 (AFT OF SATELLITE)	NUMERIC	0	0	6
021114	KP VARIANCE COEFFICIENT (GAMMA)	dB	3	-140000	18
021115	SEAWINDS SIGMA-0 QUALITY	FLAG TABLE 21115	0	0	17
021116	SEAWINDS SIGMA-0 MODE	FLAG TABLE 21116	0	0	17
021117	SIGMA-0 VARIANCE QUALITY CONTROL	NUMERIC	2	0	16
021118	ATTENUATION CORRECTION ON SIGMA-0	dB	2	-10000	14
021119	WIND SCATTEROMETER GEOPHYSICAL MODEL FUNCTION	CODE TABLE 21119	0	0	6
021120	PROBABILITY OF RAIN	NUMERIC	3	0	10
021121	SEAWINDS NOF* RAIN INDEX	NUMERIC	0	0	8
021122	ATTENUATION CORRECTION OF SIGMA-0 (FROM TB)	dB	2	-10000	14
021123	SEAWINDS NORMALIZED RADAR CROSS SECTION	dB	2	-30000	15
021128	NUMBER OF VALID POINTS PER SECOND USED TO DERIVE PREVIOUS PARAME	NUMERIC	0	0	8
021130	SPECTRUM TOTAL ENERGY	NUMERIC	6	0	28
021131	SPECTRUM MAX ENERGY	NUMERIC	6	0	28
021132	DIRECTION OF SPECTRUM MAX ON HIGHER RESOLUTION GRID	DEGREE	3	0	19
021133	WAVE-LENGTH OF SPECTRUM MAX ON HIGHER RESOLUTION GRID	M	3	0	29
021134	RANGE RESOLUTION OF CRESS COVARIANCE SPECTRUM	RAD/M	3	0	19
021135	REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS	NUMERIC	3	-524288	20
021136	IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS	NUMERIC	3	-524288	20
021137	KU BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT	dB	2	-32768	16
021138	STD KU BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT	dB	2	-32768	16
021139	KU BAND NET INSTRUMENTAL CORRECTION FOR AGC	dB	2	-2048	12
021140	S BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT	dB	2	-32768	16
021141	STD S BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT	dB	2	-32768	16
021142	S BAND NET INSTRUMENTAL CORRECTION FOR AGC	dB	2	-1024	11
021143	KU BAND RAIN ATTENUATION	dB	2	-1073741824	31
021144	ALTIMETER RAIN FLAG	FLAG TABLE 21144	0	0	2
021150	BEAM COLLOCATION	CODE TABLE 21150	0	0	2
021151	ESTIMATED ERROR IN SIGMA0 AT 40DEG INCIDENCE ANGLE	dB	2	0	9
021152	SLOPE AT 40DEG INCIDENCE ANGLE	dB/DEG	2	-80	7
021153	ESTIMATED ERROR IN SLOPE AT 40DEG INCIDENCE ANGLE	dB/DEG	2	-40	6
021154	SOIL MOISTURE SENSITIVITY	dB	2	0	12
021155	WIND VECTOR CELL QUALITY	FLAG TABLE 21155	0	0	24
021156	BACKSCATTER DISTANCE	NUMERIC	1	-4096	13
021157	LOSS PER UNIT LENGTH OF ATMOSPHERE USED	dB/M	10	0	22
021158	ASCAT kp ESTIMATE QUALITY	CODE TABLE 21158	0	0	2
021159	ASCAT SIGMA-0 USABILITY	CODE TABLE 21159	0	0	2
021160	ASCAT USE OF SYNTHETIC DATA	NUMERIC	3	0	10
021161	ASCAT SYNTHETIC DATA QUALITY	NUMERIC	3	0	10
021162	ASCAT SATELLITE ORBIT AND ATTITUDE QUALITY	NUMERIC	3	0	10
021163	ASCAT SOLAR ARRAY REFLECTION CONTAMINATION	NUMERIC	3	0	10
021164	ASCAT TELEMETRY PRESENCE AND QUALITY	NUMERIC	3	0	10
021165	ASCAT EXTRAPOLATED REFERENCE FUNCTION PRESENCE	NUMERIC	3	0	10
021166	ASCAT LAND FRACTION	NUMERIC	3	0	10
021192	RADAR BACK SCATTER	dB	2	-5000	13
022001	DIRECTION OF WAVES	DEGREE TRUE	0	0	9
022002	DIRECTION OF WIND WAVES	DEGREE TRUE	0	0	9
022003	DIRECTION OF SWELL WAVES	DEGREE TRUE	0	0	9
022004	DIRECTION OF CURRENT	DEGREE TRUE	0	0	9
022005	DIRECTION OF SEA SURFACE CURRENT	DEGREE TRUE	0	0	9
022011	PERIOD OF WAVES	S	0	0	6
022012	PERIOD OF WIND WAVES	S	0	0	6
022013	PERIOD OF SWELL WAVES	S	0	0	6
022021	HEIGHT OF WAVES	M	1	0	10
022022	HEIGHT OF WIND WAVES	M	1	0	10
022023	HEIGHT OF SWELL WAVES	M	1	0	10
022025	STANDARD DEVIATION WAVE HEIGHT	M	2	0	10
022026	STANDARD DEVIATION OF SIGNIFICANT WAVE HEIGHT	M	2	0	10
022031	SPEED OF CURRENT	M/S	2	0	13
022032	SPEED OF SEA SURFACE CURRENT	M/S	2	0	13
022035	TIDAL ELEVATION WITH RESPECT TO LOCAL CHART DATUM	M	2	0	14
022036	METEOROLOGICAL RESIDUAL TIDAL ELEVATION (SURGE OR OFFSET)	M	2	0	14
022037	TIDAL ELEVATION WITH RESPECT TO NATIONAL LAND DATUM	M	3	-10000	15
022038	TIDAL ELEVATION WITH RESPECT TO LOCAL CHART DATUM	M	3	-10000	15
022039	METEOROLOGICAL RESIDUAL TIDAL ELEVATION (SURGE OR OFFSET)	M	3	-5000	12
022040	METEOROLOGICAL RESIDUAL TIDAL ELEVATION (SURGE OR OFFSET)	M	3	-5000	14
022041	SEA-SURFACE TEMPERATURE (15-DAY RUNNING MEAN)	K	1	0	12
022042	SEA/WATER TEMPERATURE	K	1	0	12
022043	SEA/WATER TEMPERATURE	K	2	0	15
022044	SOUND VELOCITY	M/S	1	0	14
022045	SEA/WATER TEMPERATURE	K	3	0	19
022049	SEA SURFACE TEMPERATURE	K	2	0	15
022050	STANDARD DEVIATION SEA-SURFACE TEMPERATURE	K	2	0	8
022055	FLOAT CYCLE NUMBER	NUMERIC	0	0	10
022056	DIRECTION OF PROFILE	CODE TABLE 22056	0	0	2
022059	SEA SURFACE SALINITY	PART PER THOUSAND	2	0	14
022060	LAGRANGIAN DRIFTER DROGUE STATUS	CODE TABLE 22060	0	0	3
022061	STATE OF THE SEA	CODE TABLE 22061	0	0	4
022062	SALINITY	PART PER THOUSAND	2	0	14
022063	TOTAL WATER DEPTH	M	0	0	14
022064	SALINITY	PART PER THOUSAND	3	0	17
022065	WATER PRESSURE	PA	-3	0	17
022066	WATER CONDUCTIVITY	S M-1	6	0	26
022067	INSTRUMENT TYPE FOR WATER TEMPERATURE PROFILE MEASUREMENT	CODE TABLE 22067	0	0	10
022068	WATER TEMPERATURE PROFILE RECORDER TYPES	CODE TABLE 22068	0	0	7
022069	SPECTRAL WAVE DENSITY	M2HZ-1	3	0	22
022070	SIGNIFICANT WAVE HEIGHT	M	2	0	13
022071	SPECTRAL PEAK WAVE PERIOD	S	1	0	9
022072	SPECTRAL PEAK WAVE LENGTH	M	0	0	13
022073	MAXIMUM WAVE HEIGHT	M	2	0	13
022074	AVERAGE WAVE PERIOD	S	1	0	9
022075	AVERAGE WAVE LENGTH	M	0	0	13

022076	DIRECTION FROM WHICH DOMINANT WAVES ARE COMING	DEGREE TRUE	0	0	9
022077	DIRECTIONAL SPREAD OF DOMINANT WAVE	DEGREE	0	0	9
022078	DURATION OF WAVE RECORD	S	0	0	12
022079	LENGTH OF WAVE RECORD	M	0	0	16
022080	WAVEBAND CENTRAL FREQUENCY	Hz	3	0	10
022081	WAVEBAND CENTRAL WAVE NUMBER	1/M	5	0	13
022082	MAXIMUM NON-DIRECTIONAL SPECTRAL WAVE DENSITY	M**2S	2	0	20
022083	MAXIMUM NON-DIRECTIONAL SPECTRAL WAVE NUMBER	M**3	2	0	20
022084	BAND CONTAINING MAXIMUM NON- DIRECTIONAL SPECTRAL WAVE DENSITY	NUMERIC	0	0	7
022085	SPECTRAL WAVE DENSITY RATIO	NUMERIC	0	0	7
022086	MEAN DIRECTION FROM WHICH WAVES ARE COMING	DEGREE TRUE	0	0	9
022087	PRINCIPAL DIRECTION FROM WHICH WAVES ARE COMING	DEGREE TRUE	0	0	9
022088	FIRST NORMALIZED POLAR COORDINATE FROM FOURIER COEFFICIENTS	NUMERIC	2	0	7
022089	SECOND NORMALIZED POLAR COORDINATE FROM FOURIER COEFFICIENTS	NUMERIC	2	0	7
022090	NON-DIRECTIONAL SPECTRAL ESTIMATE BY WAVE FREQUENCY	M**2S	2	0	20
022091	NON-DIRECTIONAL SPECTRAL ESTIMATE BY WAVE NUMBER	M**3	2	0	20
022092	DIRECTIONAL SPECTRAL ESTIMATE BY WAVE FREQUENCY	M**2S/RAD	2	0	20
022093	DIRECTIONAL SPECTRAL ESTIMATE BY WAVE NUMBER	M**4	2	0	20
022094	TOTAL NUMBER OF WAVE BANDS	NUMERIC	0	0	7
022095	DIRECTIONAL SPREAD OF INDIVIDUAL WAVES	DEGREE	0	0	8
022096	SPECTRAL BAND WIDTH	1/S	3	0	4
022097	MEAN WAVELENGTH > 731 M OF IMAGE SPECTRUM AT LOW WAVE NUMBERS	M	0	0	14
022098	WAVELENGTH SPREAD (WAVELENGTH > 731 M) AT LOW WAVE NUMBERS	M	0	0	14
022099	MEAN DIRECTION AT LOW WAVE NUMBERS (WAVELENGTH > 731 M)	DEGREE TRUE	0	0	9
022100	DIRECTION SPREAD AT LOW WAVE NUMBERS (WAVELENGTH > 731 M)	DEGREE	0	0	9
022101	TOTAL ENERGY (WAVELENGTH > 731M) AT LOW WAVE NUMBERS	NUMERIC	0	0	31
022120	TIDE STATION AUTOMATED WATER LEVEL CHECK	CODE TABLE 22120	0	0	5
022121	TIDE STATION MANUAL WATER LEVEL CHECK	CODE TABLE 22121	0	0	5
022122	TIDE STATION AUTOMATED METEOROLOGICAL DATA CHECK	CODE TABLE 22122	0	0	5
022123	TIDE STATION MANUAL METEOROLOGICAL DATA CHECK	CODE TABLE 22123	0	0	5
022141	SEA-SURFACE TEMPERATURE (15-DAY RUNNING MEAN)	K	2	0	15
022150	NUMBER OF 18 HZ VALID POINTS FOR KU BAND	NUMERIC	0	0	10
022151	KU BAND OCEAN RANGE	M	3	0	31
022152	STD OF 18 HZ KU BAND OCEAN RANGE	M	3	0	16
022153	NUMBER OF 18 HZ VALID POINTS FOR S BAND	NUMERIC	0	0	10
022154	S BAND OCEAN RANGE	M	3	0	31
022155	STD OF 18 HZ S BAND OCEAN RANGE	M	3	0	16
022156	KU BAND SIGNIFICANT WAVE HEIGHT	M	3	0	16
022157	STD 18HZ KU BAND SIGNIFICANT WAVE HEIGHT	M	3	0	16
022158	S BAND SIGNIFICANT WAVE HEIGHT	M	3	0	16
022159	STD 18HZ S BAND SIGNIFICANT WAVE HEIGHT	M	3	0	16
022160	NORMALIZED INVERSE WAVE AGE	NUMERIC	6	0	21
022161	WAVE SPECTRA	M**4	4	0	27
023001	ACCIDENT EARLY NOTIFICATION ARTICLE APPLICABLE	CODE TABLE 23001	0	0	3
023002	ACTIVITY OR FACILITY INVOLVED IN INCIDENT	CODE TABLE 23002	0	0	5
023003	TYPE OF RELEASE	CODE TABLE 23003	0	0	3
023004	COUNTERMEASURES TAKEN NEAR BORDER	CODE TABLE 23004	0	0	3
023005	CAUSE OF INCIDENT	CODE TABLE 23005	0	0	2
023006	INCIDENT SITUATION	CODE TABLE 23006	0	0	3
023007	CHARACTERISTICS OF RELEASE	CODE TABLE 23007	0	0	3
023008	STATE OF CURRENT RELEASE	CODE TABLE 23008	0	0	2
023009	STATE OF EXPECTED RELEASE	CODE TABLE 23009	0	0	2
023016	POSSIBILITY OF SIGNIFICANT CHEMICAL TOXIC HEALTH EFFECT	CODE TABLE 23016	0	0	2
023017	FLOW DISCHARGE OF MAJOR RECIPIENT	M**3/S	6	0	20
023018	RELEASE BEHAVIOUR OVER TIME	CODE TABLE 23018	0	0	3
023019	ACTUAL RELEASE HEIGHT	M	0	-15000	17
023021	EFFECTIVE RELEASE HEIGHT	M	0	-15000	17
023022	DISTANCE OF RELEASE POINT OR SITE OF INCIDENT	M	0	0	24
023023	MAIN TRANSPORT SPEED IN THE ATMOSPHERE	M/S	1	0	12
023024	MAIN TRANSPORT SPEED IN WATER	M/S	2	0	13
023025	MAIN TRANSPORT SPEED IN GROUND WATER	M/S	2	0	13
023027	MAIN TRANSPORT DIRECTION IN THE ATMOSPHERE	DEGREE TRUE	0	0	9
023028	MAIN TRANSPORT DIRECTION IN WATER	DEGREE TRUE	0	0	9
023029	MAIN TRANSPORT DIRECTION IN GROUND WATER	DEGREE TRUE	0	0	9
023031	POSSIBILITY THAT PLUME WILL ENCOUNTER PRECIPITATION IN STATE IN	CODE TABLE 23031	0	0	2
023032	PLUME WILL ENCOUNTER CHANGE IN WIND DIRECTION AND/OR SPEED FLAG	CODE TABLE 23032	0	0	2
024001	ESTIMATE OF AMOUNT OF RADIOACTIVITY RELEASED UP TO SPECIFIED TIM	Bq	-11	0	28
024002	ESTIMATED MAXIMUM POTENTIAL RELEASE	Bq	-11	0	28
024003	COMPOSITION OF RELEASE	CODE TABLE 24003	0	0	5
024004	ELEMENT NAME	CCITIA5	0	0	16
024005	ISOTOPE MASS	NUMERIC	0	0	9
024011	DOSE	mSv	2	0	32
024012	TRAJECTORY DOSE (DEFINED LOCATION AND EXPECTED TIME OF ARRIVAL)	mSv	2	0	32
024013	GAMMA DOSE IN AIR ALONG THE MAIN TRANSPORT PATH (DEFINED LOCATIO	mSv	2	0	32
024021	AIR CONCENTRATION (OF NAMED ISOTOPE TYPE INCLUDING GROSS BETA)	Bq/M**3	2	0	32
024022	CONCENTRATION IN PRECIPITATION (OF NAMES ISOTOPE TYPE)	Bq/L	2	0	32
024023	PULSE RATE OF BETA RADIATION	1/S	1	0	14
024024	PULSE RATE OF GAMMA RADIATION	1/S	1	0	14
025001	RANGE-GATE LENGTH	M	-1	0	6
025002	NUMBER OF GATES AVERAGED	NUMERIC	0	0	4
025003	NUMBER OF INTEGRATED PULSES	NUMERIC	0	0	8
025004	ECHO PROCESSING	CODE TABLE 25004	0	0	2
025005	ECHO INTEGRATION	CODE TABLE 25005	0	0	2
025006	Z TO R CONVERSION	CODE TABLE 25006	0	0	3
025007	Z TO R CONVERSION FACTOR	NUMERIC	0	0	12
025008	Z TO R CONVERSION EXPONENT	NUMERIC	2	0	9
025009	CALIBRATION METHOD	FLAG TABLE 25009	0	0	4
025010	CLUTTER TREATMENT	CODE TABLE 25010	0	0	4
025011	GROUND OCCULTATION CORRECTION (SCREENING)	CODE TABLE 25011	0	0	2
025012	RANGE ATTENUATION CORRECTION	CODE TABLE 25012	0	0	2
025013	BRIGHT-BAND CORRECTION	FLAG TABLE 25013	0	0	2
025014	AZIMUTH CLUTTER CUT-OFF (SEE NOTE 1)	NUMERIC	0	0	12
025015	RADOME ATTENUATION CORRECTION	FLAG TABLE 25015	0	0	2

025016	CLEAR-AIR ATTENUATION CORRECTION	dB/M	5	0	6
025017	PRECIPITATION ATTENUATION CORRECTION	FLAG TABLE 25017	0	0	2
025018	A TO Z LAW FOR ATTENUATION FACTOR	NUMERIC	7	0	6
025019	A TO Z LAW FOR ATTENUATION EXPONENT	NUMERIC	2	0	7
025020	MEAN SPEED ESTIMATION	CODE TABLE 25020	0	0	2
025021	WIND COMPUTATION ENHANCEMENT	FLAG TABLE 25021	0	0	8
025025	BATTERY VOLTAGE	V	1	0	9
025026	BATTERY VOLTAGE (LARGE RANGE)	V	1	0	12
025028	OPERATOR OR MANUFACTURER DEFINED PARAMETER	NUMERIC	1	-16384	15
025030	RUNNING MEAN SEA-SURFACE TEMPERATURE USAGE	CODE TABLE 25030	0	0	2
025032	WIND PROFILER MODE INFORMATION	CODE TABLE 25032	0	0	2
025033	WIND PROFILER SUBMODE INFORMATION*	CODE TABLE 25033	0	0	2
025034	WIND PROFILER QUALITY CONTROL TEST RESULTS*	FLAG TABLE 25034	0	0	4
025036	ATMOSPHERICS LOCATION METHOD	CODE TABLE 25036	0	0	4
025040	CO2 WIND PRODUCT DERIVATION	CODE TABLE 25040	0	0	4
025041	MOVING PLATFORM DIRECTION REPORTING METHOD	CODE TABLE 25041	0	0	2
025042	MOVING PLATFORM SPEED REPORTING METHOD	CODE TABLE 25042	0	0	2
025043	WAVE SAMPLING INTERVAL (TIME)	S	4	0	15
025044	WAVE SAMPLING INTERVAL (SPACE)	M	2	0	14
025045	HIRS CHANNEL COMBINATION	FLAG TABLE 25045	0	0	21
025046	MSU CHANNEL COMBINATION	FLAG TABLE 25046	0	0	5
025047	SSU CHANNEL COMBINATION	FLAG TABLE 25047	0	0	4
025048	AMSU-A CHANNEL COMBINATION	FLAG TABLE 25048	0	0	16
025049	AMSU-B CHANNEL COMBINATION	FLAG TABLE 25049	0	0	6
025051	AVHRR CHANNEL COMBINATION	FLAG TABLE 25051	0	0	7
025052	LOG-10 OF PRINCIPAL COMPONENTS NORMALIZED FIT TO DATA	NUMERIC	4	0	15
025053	OBSERVATION QUALITY	FLAG TABLE 25053	0	0	12
025054	SSMIS SUBFRAME ID NUMBER	NUMERIC	0	0	5
025055	MULTIPLEXER HOUSEKEEPING	K	2	0	16
025060	SOFTWARE IDENTIFICATION (SEE NOTE 2)	NUMERIC	0	0	14
025061	SOFTWARE IDENTIFICATION AND VERSION NUMBER	CCITTIA5	0	0	96
025062	DATABASE IDENTIFICATION	NUMERIC	0	0	14
025065	ORIENTATION CORRECTION (AZIMUTH)	DEGREE	2	-1000	11
025066	ORIENTATION CORRECTION (ELEVATION)	DEGREE	2	-1000	11
025067	RADIOSONDE RELEASE POINT PRESSURE CORRECTION	PA	0	-8000	14
025068	NUMBER OF ARCHIVE RECOMPUTES	NUMERIC	0	0	7
025069	FLIGHT LEVEL PRESSURE CORRECTIONS	FLAG TABLE 25069	0	0	8
025070	MAJOR FRAME COUNT	NUMERIC	0	0	4
025071	FRAME COUNT	NUMERIC	0	0	5
025075	SATELLITE ANTENNA CORRECTIONS VERSION NUMBER	NUMERIC	0	0	5
025076	LOG-10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS	LOG (1/M)	8	0	30
025077	BANDWIDTH CORRECTION COEFFICIENT 1 FOR ATOVS	NUMERIC	5	-100000	18
025078	BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS	NUMERIC	5	0	17
025079	ALBEDO-RADIANCE SOLAR FILTERED IRRADIANCE FOR ATOVS	W/M**2	4	0	24
025080	ALBEDO-RADIANCE EQUIVALENT FILTER WIDTH FOR ATOVS	M	10	0	14
025085	FRACTION OF CLEAR PIXELS IN HIRS FOV	NUMERIC	0	0	7
025086	DEPTH CORRECTION INDICATOR	CODE TABLE 25086	0	0	2
025091	STRUCTURE CONSTANT OF THE REFRACTION INDEX (CN2)	dB	3	-18192	13
025092	ACOUSTIC PROPAGATION VELOCITY	M/S	2	28000	14
025093	RASS COMPUTATION CORRECTION	FLAG TABLE 25093	0	0	8
025095	ALTIMETER STATE FLAG	FLAG TABLE 25095	0	0	2
025096	RADIOMETER STATE FLAG	FLAG TABLE 25096	0	0	5
025097	THREE DIMENSIONAL ERROR ESTIMATE OF THE NAVIGATOR ORBIT	CODE TABLE 25097	0	0	4
025100	XBT/XCTD FALL RATE EQUATION COEFFICIENT A	NUMERIC	5	0	20
025101	XBT/XCTD FALL RATE EQUATION COEFFICIENT B	NUMERIC	5	-500000	21
025102	NUMBER OF MISSING LINES EXCLUDING DATA GAPS	NUMERIC	0	0	8
025103	NUMBER OF DIRECTIONAL BINS	NUMERIC	0	0	8
025104	NUMBER OF WAVE-LENGTH BINS	NUMERIC	0	0	8
025105	FIRST DIRECTIONAL BIN	DEGREES	3	0	19
025106	DIRECTIONAL BIN STEP	DEGREES	3	0	19
025107	FIRST WAVE-LENGTH BIN	M	3	0	29
025108	LAST WAVE-LENGTH BIN	M	3	0	29
025110	IMAGE PROCESSING SUMMARY	FLAG TABLE 025110	0	0	10
025111	NUMBER OF INPUT DATA GAPS	NUMERIC	0	0	8
025120	RA2-L2-PROCESSING FLAG	CODE TABLE 25120	0	0	2
025121	RA2-L2-PROCESSING QUALITY	%	0	0	7
025122	HARDWARE CONFIGURATION FOR RF	CODE TABLE 25122	0	0	2
025123	HARDWARE CONFIGURATION FOR HPA	CODE TABLE 25123	0	0	2
025124	MWR L2 PROCESSING FLAG	CODE TABLE 25124	0	0	2
025125	MWR L2-PROCESSING QUALITY	%	0	0	7
025126	MODEL DRY TROPOSPHERIC CORRECTION	M	3	-32768	16
025127	INVERTED BAROMETER CORRECTION	M	3	-32768	16
025128	MODEL WET TROPOSPHERIC CORRECTION	M	3	-32768	16
025129	MWR DERIVED WET TROPOSPHERIC CORRECTION	M	3	-32768	16
025130	RA2 IONOSPHERIC CORRECTION ON KU BAND	M	3	-32768	16
025131	IONOSPHERIC CORRECTION FROM DORIS ON KU BAND	M	3	-32768	16
025132	IONOSPHERIC CORRECTION FROM MODEL ON KU BAND	M	3	-32768	16
025133	SEA STATE BIAS CORRECTION ON KU BAND	M	3	-32768	16
025134	RA2 IONOSPHERIC CORRECTION ON S BAND	M	3	-32768	16
025135	IONOSPHERIC CORRECTION FROM DORIS ON S BAND	M	3	-32768	16
025136	IONOSPHERIC CORRECTION FROM MODEL ON S BAND	M	3	-32768	16
025137	SEA STATE BIAS CORRECTION ON S BAND	M	3	-32768	16
025138	AVERAGE SIGNAL TO NOISE RATION	NUMERIC	0	-2048	12
025140	START CHANNEL	NUMERIC	0	0	14
025141	END CHANNEL	NUMERIC	0	0	14
025142	CHANNEL SCALE FACTOR	NUMERIC	0	0	6
025150	SATELLITE INTENSITY ANALYSIS METHOD OF TROPICAL CYCLONE	CODE TABLE 25150	0	0	4
026001	PRINCIPAL TIME OF DAILY READING IN UTC OF MAXIMUM TEMPERATURE	HOURL	1	0	12
026002	PRINCIPAL TIME OF DAILY READING IN UTC OF MINIMUM TEMPERATURE	HOURL	1	0	12
026003	TIME DIFFERENCE	MINUTE	0	-1440	12
026010	HOURS INCLUDED	FLAG TABLE 26010	0	0	26
026020	DURATION OF PRECIPITATION	MINUTE	0	0	11
027001	LATITUDE (HIGH ACCURACY)	DEGREE	5	-9000000	25

027002	LATITUDE (COARSE ACCURACY)	DEGREE	2	-9000	15
027003	ALTERNATE LATITUDE (COARSE ACCURACY)	DEGREE	2	-9000	15
027004	ALTERNATE LATITUDE (HIGH ACCURACY)	DEGREE	5	-9000000	25
027020	SATELLITE LOCATION COUNTER	NUMERIC	0	0	16
027021	SATELLITE SUBLOCATION DIMENSION	NUMERIC	0	0	16
027031	IN DIRECTION OF 0 DEGREES LONGITUDE, DISTANCE FROM THE EARTH'S C M		2	-1073741824	31
027080	VIEWING AZIMUTH ANGLE	DEGREE TRUE	2	0	16
028001	LONGITUDE (HIGH ACCURACY)	DEGREE	5	-18000000	26
028002	LONGITUDE (COARSE ACCURACY)	DEGREE	2	-18000	16
028003	ALTERNATE LONGITUDE (COARSE ACCURACY)	DEGREE	2	-18000	16
028004	ALTERNATE LONGITUDE (HIGH ACCURACY)	DEGREE	5	-18000000	26
028031	IN DIRECTION 90 DEGREES EAST, DISTANCE FROM THE EARTH'S CENTRE M		2	-1073741824	31
029001	PROJECTION TYPE	CODE TABLE 29001	0	0	3
029002	CO-ORDINATE GRID TYPE	CODE TABLE 29002	0	0	3
030001	PIXEL VALUE (4 BITS)	NUMERIC	0	0	4
030002	PIXEL VALUE (8 BITS)	NUMERIC	0	0	8
030004	PIXEL VALUE (16 BITS)	NUMERIC	0	0	16
030021	NUMBER OF PIXELS PER ROW	NUMERIC	0	0	12
030022	NUMBER OF PIXELS PER COLUMN	NUMERIC	0	0	12
030031	PICTURE TYPE	CODE TABLE 30031	0	0	4
030032	COMBINATION WITH OTHER DATA	FLAG TABLE 30032	0	0	16
031000	SHORT DELAYED DESCRIPTOR REPLICATION FACTOR	NUMERIC	0	0	1
031001	DELAYED DESCRIPTOR REPLICATION FACTOR	NUMERIC	0	0	8
031002	EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR	NUMERIC	0	0	16
031011	DELAYED DESCRIPTOR AND DATA REPETITION FACTOR	NUMERIC	0	0	8
031012	EXTENDED DELAYED DESCRIPTOR AND DATA REPETITION FACTOR	NUMERIC	0	0	16
031021	ASSOCIATED FIELD SIGNIFICANCE	CODE TABLE 31021	0	0	6
031031	DATA PRESENT INDICATOR	FLAG TABLE 31031	0	0	1
033002	QUALITY INFORMATION	CODE TABLE 33002	0	0	2
033003	QUALITY INFORMATION	CODE TABLE 33003	0	0	3
033005	QUALITY INFORMATION (AWS DATA)	FLAG TABLE 33005	0	0	30
033006	INTERNAL MEASUREMENT STATUS INFORMATION (AWS)	CODE TABLE 33006	0	0	3
033007	PER CENT CONFIDENCE	%	0	0	7
033015	DATA QUALITY CHECK INDICATOR	CODE TABLE 33015	0	0	6
033020	QUALITY CONTROL INDICATION OF FOLLOWING VALUE	CODE TABLE 33020	0	0	3
033021	QUALITY OF FOLLOWING VALUE	CODE TABLE 33021	0	0	2
033022	QUALITY OF BUOY SATELLITE TRANSMISSION	CODE TABLE 33022	0	0	2
033023	QUALITY OF BUOY LOCATION	CODE TABLE 33023	0	0	2
033024	STATION ELEVATION QUALITY MARK (FOR MOBILE STATIONS)	CODE TABLE 33024	0	0	4
033025	ACARS INTERPOLATED VALUES	CODE TABLE 33025	0	0	3
033026	MOISTURE QUALITY	CODE TABLE 33026	0	0	6
033027	LOCATION QUALITY CLASS (RANGE OF RADIUS OF 66 % CONFIDENCE)	CODE TABLE 33027	0	0	3
033030	SCAN LINE STATUS FLAGS FOR ATOVS	FLAG TABLE 33030	0	0	24
033031	SCAN LINE QUALITY FLAGS FOR ATOVS	FLAG TABLE 33031	0	0	24
033032	CHANNEL QUALITY FLAGS FOR ATOVS	FLAG TABLE 33032	0	0	24
033033	FIELD OF VIEW QUALITY FLAGS FOR ATOVS	FLAG TABLE 33033	0	0	24
033035	MANUAL/AUTOMATIC QUALITY CONTROL	CODE TABLE 33035	0	0	4
033036	NOMINAL CONFIDENCE THRESHOLD	%	0	0	7
033037	WIND CORRELATION ERROR	FLAG TABLE 33037	0	0	20
033038	QUALITY FLAGS FOR GROUND-BASED GNSS DATA	FLAG TABLE 33038	0	0	10
033039	QUALITY FLAGS FOR RADIO OCCULTATION DATA	FLAG TABLE 33039	0	0	16
033040	CONFIDENCE INTERVAL	%	0	0	7
033041	ATTRIBUTE OF FOLLOWING VALUE	CODE TABLE 33041	0	0	2
033042	TYPE OF LIMIT REPRESENTED BY FOLLOWING VALUE	CODE TABLE 33042	0	0	3
033043	AST CONFIDENCE	FLAG TABLE 33043	0	0	8
033044	ASAR QUALITY INFORMATION	FLAG TABLE 33044	0	0	15
033045	PROBABILITY OF FOLLOWING EVENT	%	0	0	7
033046	CONDITIONAL PROBABILITY OF FOLLOWING EVENT WITH RESPECT TO SPECI	%	0	0	7
033047	MEASUREMENT CONFIDENCE DATA	FLAG TABLE 33047	0	0	31
033048	CONFIDENCE MEASURE OF SAR INVERSION	CODE TABLE 33048	0	0	2
033049	CONFIDENCE MEASURE OF WIND RETRIEVAL	CODE TABLE 33049	0	0	2
033050	GLOBAL GTSPP QUALITY FLAG	CODE TABLE 33050	0	0	4
033052	S BAND OCEAN RETRACKING QUALITY	FLAG TABLE 33052	0	0	21
033053	KU BAND OCEAN RETRACKING QUALITY	FLAG TABLE 33053	0	0	21
033060	GQISFLAGQUAL-INDIVIDUAL IASI-SYSTEM QUALITY FLAG	CODE TABLE 33060	0	0	2
033061	GQISQUALINDEX - INDICATOR FOR INSTRUMENT NOISE PERFORMANCE	%	0	0	7
033062	GQISQUALINDEXLOC - INDICATOR FOR GEOMETRIC QUALITY INDEX	%	0	0	7
033063	GQISQUALINDEXRAD - INDICATOR FOR INSTRUMENT NOISE PERFORMANCE	%	0	0	7
033064	GQISQUALINDEXSPECT - INDICATOR FOR INSTRUMENT NOISE PERFORMANCE	%	0	0	7
033065	GQISSYSTEMSCONQUAL - OUTPUT OF SYSTEM TEC QUALITY FUNCTION	NUMERIC	0	0	24
033066	SBUV TOTAL OZONE QUALITY	CODE TABLE 33066	0	0	4
033067	SBUV PROFILE OZONE QUALITY	CODE TABLE 33067	0	0	4
035000	FM AND REGIONAL CODE NUMBER	CODE TABLE 35000	0	0	10
035001	TIME-FRAME FOR MONITORING	CODE TABLE 35001	0	0	3
035011	NUMBER OF REPORTS ACTUALLY RECEIVED	NUMERIC	0	0	14
035021	BULLETIN BEING MONITORED (TTAAII)	CCITTIA5	0	0	48
035022	BULLETIN BEING MONITORED (YYGGGG)	CCITTIA5	0	0	48
035023	BULLETIN BEING MONITORED (CCCC)	CCITTIA5	0	0	32
035024	BULLETIN BEING MONITORED (BBB)	CCITTIA5	0	0	24
035030	DISCREPANCIES IN THE AVAILABILITY OF EXPECTED DATA	CODE TABLE 35030	0	0	4
035031	QUALIFIER ON MONITORING RESULTS	CODE TABLE 35031	0	0	7
035032	CAUSE OF MISSING DATA	CODE TABLE 35032	0	0	4
035033	OBSERVATION AND COLLECTION DEFICIENCIES	CODE TABLE 35033	0	0	7
035034	STATISTICAL TRENDS FOR AVAILABILITY OF DATA (DURING THE SURVEY P	CODE TABLE 35034	0	0	3
035035	REASON FOR TERMINATION	CODE TABLE 35035	0	0	5
040001	SURFACE SOIL MOISTURE (MS)	%	1	0	10
040002	ESTIMATED ERROR IN SURFACE SOIL MOISTURE	%	1	0	10
040003	MEAN SURFACE SOIL MOISTURE	NUMERIC	3	0	10
040004	RAIN FALL DETECTION	NUMERIC	3	0	10
040005	SOIL MOISTURE CORRECTION FLAG	FLAG TABLE 40005	0	0	8
040006	SOIL MOISTURE PROCESSING FLAG	FLAG TABLE 40006	0	0	16
040007	SOIL MOISTURE QUALITY	%	1	0	10
040008	FROZEN LAND SURFACE FRACTION	%	1	0	10



040009	INUNDATION AND WETLAND FRACTION	%	1	0	10
040010	TOPOGRAPHIC COMPLEXITY	%	1	0	10

### 2.3 Bufr Table C - Data description operators

Table reference F X	Operand	Operator name	Operation definition
2 01	Y	Change data width	Add (Y-128) bits to the data width given for each data element in Table B, other than CCITT IA5 (character) data, code or flag tables
2 02	Y	Change scale	Multiply scale given for each non- code data element in Table B by $10^{**}(Y-128)$
2 03	Y	Change reference value	Subsequent element descriptors define new reference values for corresponding Table B entries. Each new reference value is represented by Y bits in Data section. Definition of new reference values is concluded by coding this operator with Y=255. Negative reference values shall be represented by positive integer with left-most bit (bit 1) set to 1.
2 04	Y	Add associated field	Precede each data element with Y bits of information. This operation associates a data field (e.g. quality control information) of Y bits with each data element.
2 05	Y	Signify character	Y characters (CCITT IA5) are inserted as a data field of Yx8 bits in length
2 06	Y	Signify data width for the immediately following local descriptors	Y bits of data are described by the immediately following descriptors
2 07	Y	Increase scale, reference value and data width	For Table B elements that are not CCITTIA5 data, code or flag tables: 1) Add Y bits to the existing scale 2) multiply the existing reference value by $10^{**}Y$ 3) Calculate $((10*Y)+2)/3$ , disregard any fractional remainder and add the result to the existing data width

2 08	Y	Change width of CCITTIA5 field	Y characters from CCITTIA5 (representing Y*8 bits in length) replace the specified data width given for each CCITTIA5 element in table B. Note that maximum value for Y is 255.
2 09	Y	IEEE floating point representation	For elements in Table B other than CCITTIA5, Code Tables, Flag Tables and delayed replication factors, this operator shall indicate that values are represented in YYY bit IEEE floating point, where YYY can be set to 032 (single precision) or 064 (double precision). This Operator shall override the scaling, reference value and data width from Table B. An operand of YYY=000 shall reinstate the table B scaling, reference value and data width.
2 21	Y	Data not present	Data values present in Section 4 corresponding to the following Y descriptors shall be limited to data from Class 1-9, Class 31, and data needed for replication expansion.
2 41	000	Define event	This operator denotes the beginning of the definition of an event
2 41	255	Cancel define event	This operator denotes the conclusion of the event definition that was begun via the previous 241000 operator
2 42	000	Define conditioning event	This operator denotes the beginning of the definition of a conditioning event
2 42	255	Cancel define conditioning event	This operator denotes the conclusion of the conditioning event definition that was begun via previous 242000 operator
2 43	000	Categorical forecast values follow	The values which follow are categorical forecast values
2 43	255	Cancel categorical forecast values follow	This operator denotes the conclusion of the definition of categorical forecast values that was begun via the previous 243000 operator

## 2.4 Bufr Code and Flag Tables

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001003 0008 0000 01 ATARCTICA
              0001 01 REGION I
              0002 01 REGION II
              0003 01 REGION III
              0004 01 REGION IV
              0005 01 REGION V
              0006 01 REGION VI
              0007 01 MISSING VALUE
001007 0027 0001 01 ERS1
              0002 01 ERS2
              0020 01 SPOT1
              0021 01 SPOT2
              0050 01 METEOSAT 3
              0051 01 METEOSAT 4
              0150 01 GMS 3
              0151 01 GMS 4
              0200 01 NOAA 8
              0201 01 NOAA 9
              0202 01 NOAA 10
              0203 01 NOAA 11
              0220 01 LANDSAT 5
              0221 01 LANDSAT 6
              0240 01 DMSP 7
              0241 01 DMSP 8
              0242 01 DMSP 9
              0243 01 DMSP 10
              0244 01 DMSP 11
              0250 01 GOES 6
              0251 01 GOES 7
              0252 01 GOES 8
              0253 01 GOES 9
              0254 01 GOES 10
              0255 01 GOES 11
              0256 01 GOES 12
              1023 01 MISSING VALUE
001031 0008 0000 01 RESERVED
              0007 01 US WEATHER SERVICE-NMC
              0034 01 JAPAN METEOROLOGICAL AGENCY(TOKYO)
              0046 01 BRAZILIAN SPACE AGENCY-INPE
              0052 01 NATIONAL HURRICANE CENTRE,MIAMI,FL,USA-RSMC
              0057 01 US AIR FORCE - AFGWC
              0058 01 US NAVY - FNOC
              0059 01 NOAA FORECAST SYSTEMS LABORATORY,BOULDER,CO,USA
              0074 01 UK METEOROLOGICAL OFFICE,BRACKNELL
              0098 01 ECMWF
              0255 01 MISSING VALUE
001032 0041 0001 01 PREPROCESSING CONSISTENCY CHECK
              0010 01 BIAS CORRECTION
              0020 01 BLACK LIST
              0030 01 OI MASS AND WIND ANALYSIS, REPORT STATUS
              0031 01 OI HUMIDITY ANALYSIS, REPORT STATUS
              0032 01 OI ANALYSIS VARIABLES
              0033 01 OI ANALYSIS, FIRST GUESS Q/C
              0034 01 OI ANALYSIS, FINAL ANALYSIS Q/C
              0035 01 OI ANALYSIS, EVENT FLAGS
              0040 01 DYNAMIC INITIALISATION SCHEME
              0041 01 NORMAL MODE INITIALISATION SCHEME
              0050 01 SURFACE ANALYSIS, REPORT STATUS
              0051 01 SURFACE ANALYSIS VARIABLES
              0052 01 SURFACE ANALYSIS Q/C
              0053 01 SURFACE ANALYSIS, EVENT FLAGS
              0060 01 3D VAR REPORT STATUS
              0061 01 3D VAR ANALYSIS VARIABLES
              0062 01 3D VAR Q/C
              0063 01 3D VAR EVENT FLAGS
              0080 01 PRESAT FIRST GUESS
              0081 01 PRESAT ERROR STANDARD DEVIATIONS
              0082 01 PRESAT BIAS ESTIMATES
              0083 01 PRESAT BRIGHTNESS TEMPERATURE QUALITY FLAGS
              0084 01 PRESAT SAMARY FLAGS
              0090 01 FIRST GUESS (6 HOUR FORECAST)
              0091 01 FIRST GUESS (FGAT INTERPOLATED)
              0100 01 PRESCAT AMBIGUITY REMOVAL
              0110 01 WAM FIRST GUESS
              0111 01 WAM ANALYSIS
              0112 01 WAM FORECAST
              0113 01 WAM Q/C
              0201 01 COLLOCATION WITH SURFACE DATA
              0202 01 COLLOCATION WITH TEMP/PILOT DATA
              0203 01 COLLOCATION WITH AIREP DATA
              0204 01 COLLOCATION WITH SATOB DATA
              0205 01 COLLOCATION WITH TOVS DATA
              0206 01 COLLOCATION WITH ERS1 SCATTEROMETER DATA
              0207 01 COLLOCATION WITH ERS1 ALTIMETER DATA
              0220 01 ERS1 SCATTEROMETER COLLOCATION BLACK LIST
              0230 01 GAUSS ERROR
              0231 01 GROSS ERROR
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001090 0005 0000 01 LAF (LAGGED-AVERAGE FORECASTING)
          0001 01 BREEDING
          0002 01 SINGULAR VECTOR
          0003 01 MULTIPLE ANALYSIS CYCLE
          0255 01 MISSING VALUE
001092 0005 0000 01 UNPERTURBED HIGH-RESOLUTION CONTROL FORECAST
          0001 01 UNPERTURBED LOW-RESOLUTION CONTROL FORECAST
          0002 01 NEGATIVELY PERTURBED FORECAST
          0003 01 POSITIVELY PERTURBED FORECAST
          0255 01 MISSING VALUE
002001 0004 0000 01 AUTOMATIC STATION
          0001 01 MANNED STATION
          0002 01 HYBRID, BOTH MANNED AND AUTOMATIC
          0003 01 MISSING VALUE
002002 0004 0000 01 MEASURED IN M S-1 UNLESS OTHERWISE INDICATED
          0001 01 CERTIFIED INSTRUMENTS
          0002 01 ORIGINALLY MEASURED IN KNOTS
          0003 01 ORIGINALLY MEASURED IN KM/H
002003 0012 0000 01 PRESSURE INSTRUMENT ASSOCIATED WITH WIND-MEASURING EQUIPMENT
          0001 01 OPTICAL THEODOLITE
          0002 01 RADIO THEODOLITE
          0003 01 RADAR
          0004 01 VLF-OMEGA
          0005 01 LORAN C
          0006 01 WIND PROFILER
          0007 01 SATELLITE NAVIGATION
          0008 01 RADIO-ACOUSTIC SOUNDING SYSTEM (RASS)
          0009 01 SODAR
          0014 02 PRESSURE INSTRUMENT ASSOCIATED WITH WIND MEASUREMENT EQUIPME
                NT BUT PRESSURE ELEMENT FAILED DURING ASCENT
          0015 01 MISSING VALUE
002004 0011 0000 01 USA OPEN PAN EVAPORIMETER (WITHOUT COVER)
          0001 01 USA OPEN PAN EVAPORIMETER (MESH COVERED)
          0002 01 GGI-300 EVAPORIMETER (SUNKEN)
          0003 01 20 M**2 TANK
          0004 01 OTHERS
          0005 01 RICE
          0006 01 WHEAT
          0007 01 MAIZE
          0008 01 SORGHUM
          0009 01 OTHER CROPS
          0015 01 MISSING VALUE
002011 0054 0000 01 RESERVED
          0001 01 RESERVED
          0002 01 NO RADIOSONDE-PASSIVE TARGET (E.G. REFLECTOR)
          0003 01 NO RADIOSONDE-ACTIVE TARGET (E.G. TRANSPONDER)
          0004 01 NO RADIOSONDE-PASSIVE TEMPERATURE-HUMIDITY PROFILER
          0005 01 NO RADIOSONDE-ACTIVE TEMPERATURE-HUMIDITY PROFILER
          0006 01 NO RADIOSONDE-RADIO ACOUSTIC SOUNDER
          0009 01 NO RADIOSONDE-SYSTEM UNKNOWN OR NOT SPECIFIED
          0010 01 RS VIZ TYPE A (USA)
          0011 01 RS VIZ TYPE B (USA)
          0012 01 RS SDC (SPACE DATA CORPORATION-USA)
          0013 01 ASTOR (NO LONGER MADE-AUSTRALIA)
          0014 01 VIZ MARK I MICROSONDE (USA)
          0015 01 EEC COMPANY TYPE 23 (USA)
          0016 01 ELIN (AUSTRIA)
          0017 01 GRAW G. (GERMANY)
          0019 01 GRAW M60 (GERMANY)
          0020 01 INDIAN MET SERVICE MK3 (INDIA)
          0021 01 VIZ/JIN YANG MARK I MICROSONDE (SOUTH KOREA)
          0022 01 MEISEI RS2-80 (JAPAN)
          0023 01 MESURAL FMO 1950A (FRANCE)
          0024 01 MESURAL FMO 19455A (FRANCE)
          0025 01 MESURAL MH73A (FRANCE)
          0026 01 METEOLABOR BASORA (SWITZERLAND)
          0027 01 AVK-MRZ (USSR)
          0028 01 METEORIT MARZ2-1 (USSR)
          0029 01 METEIRIT MARZ2-2 (USSR)
          0030 01 OKI RS2-80 (JAPAN)
          0031 01 VIZ/VALCOM TYPE A PRESSURE-COMMUTATED (CANADA)
          0032 01 SHANGAI RADIO (CHINA)
          0033 01 UK MET OFFICE MK3 (UK)
          0034 01 VINOHRADY (CZECHOSLOVAKIA)
          0035 01 VAISALA RS18 (FINLAND)
          0036 01 VAISALA RS21 (FINLAND)
          0037 01 VAISALA RS80 (FINLAND)
          0038 01 VIZ LOCATE (LORAN-C) (USA)
          0039 01 SPRENGER E076 (GERMANY)
          0040 01 SPRENGER E084 (GERMANY)
          0041 01 SPRENGER E085 (GERMANY)
          0042 01 SPRENGER E086 (GERMANY)
          0043 01 AIR IS -4A-1680 (UK)
          0044 01 AIR IS -4A-1680 X (UK)
          0045 01 RS MSS (USA)
          0046 01 AIR IS -4A-403 (USA)
          0047 01 MEISLEI RS2-91 (JAPAN)
          0048 01 VALCOM (CANADA)
          0049 01 VIZ MARK II (USA)
          0060 01 VAISALA RS80/MICROCORA (FINLAND)
          0061 01 VAISALA RS80/DIGCORA OR MARWIN (FINLAND)
          0062 01 VAISALA RS80/PCCORA (FINLAND)
          0063 01 VAISALA RS80/STAR (FINLAND)

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0064 03 ORBITAL, SCIENCE CORPORATION, SPACE DATA DIVISION, TRANSPONDER
      RADIOSONDE, TYPE 909-11-XX, WHERE XX CORRESPOND TO THE MODEL
      OF THE INSTRUMENT
0065 03 VIZ TRANSPONDER RADIOSONDE, MODEL NUMBER 1499-520 (USA)
0255 01 MISSING VALUE
002012 0001 0000 01 TO BE DEVELOPED
002013 0009 0000 01 NO CORRECTION
0001 01 CIMO SOLAR CORRECTED AND CIMO INFRARED CORRECTED
0002 01 CIMO SOLAR CORRECTED AND INFRARED CORRECTED
0003 01 CIMO SOLAR CORRECTED ONLY
0004 02 SOLAR AND INFRARED CORRECTED AUTOMATICALLY BY RADIOSONDE SY
      STEM
0005 01 SOLAR CORRECTED AUTOMATICALLY BY RADIOSONDE SYSTEM
0006 01 SOLAR AND INFRARED CORRECTED AS SPECIFIED BY COUNTRY
0007 01 SOLAR CORRECTED AS SPECIFIED BY COUNTRY
0015 01 MISSING VALUE
002014 0050 0000 01 NO WINDFINDING
0001 01 AUTOMATIC WITH AUXILIARY OPTICAL DIRECTION FINDING
0002 01 AUTOMATIC WITH AUXILIARY RADIO DIRECTION FINDING
0003 01 AUTOMATIC WITH AUXILIARY RANGING
0004 01 NOT USED
0005 01 AUTOMATIC WITH MULTIPLE VLF-OMEGA SIGNALS
0006 01 AUTOMATIC CROSS CHAIN LORAN-C
0007 01 AUTOMATIC WITH AUXILIARY WIND PROFILER
0008 01 AUTOMATIC SATELLITE NAVIGATION
0019 01 TRACKING TECHNIQUE NOT SPECIFIED
0020 01 VESSEL STOPPED
0021 01 VESSEL DIVERTED FROM ORIGINAL DESTINATION
0022 01 VESSEL'S ARRIVAL DELAYED
0023 01 CONTAINER DAMAGED
0024 01 POWER FAILURE TO CONTAINER
0029 01 OTHER PROBLEMS
0030 01 MAJOR POWER PROBLEMS
0031 01 UPS INOPERATIVE
0032 01 RECEIVER HARDWARE PROBLEMS
0033 01 RECEIVER SOFTWARE PROBLEMS
0034 01 PROCESSOR HARDWARE PROBLEMS
0035 01 PROCESSOR SOFTWARE PROBLEMS
0036 01 NAVAID SYSTEM DAMAGED
0037 01 SHORTAGE OF LIFTING GAS
0039 01 OTHER PROBLEMS
0040 01 MECHANICAL DEFECT
0041 01 MATERIAL DEFECT (HAND LAUNCHER)
0042 01 POWER FAILURE
0043 01 CONTROL FAILURE
0044 01 PNEUMATIC/HYDRAULIC FAILURE
0045 01 OTHER PROBLEMS
0046 01 COMPRESSOR PROBLEMS
0047 01 BALLOON PROBLEMS
0048 01 BALLOON RELEASE PROBLEMS
0049 01 LAUNCHER DAMAGED
0050 01 R/S RECEIVER ANTENNA DEFECT
0051 01 NAVAID ANTENNA DEFECT
0052 01 R/S RECEIVER CABLING (ANTENNA DEFECT)
0053 01 NAVAID ANTENNA CABLING DEFECT
0059 01 OTHER PROBLEMS
0060 01 ASAP COMMUNICATIONS DEFECT
0061 01 COMMUNICATIONS FACILITY REJECTED DATA
0062 01 NO POWER AT TRANSMITTING ANTENNA
0063 01 ANTENNA CABLE BROKEN
0064 01 ANTENNA CABLE DEFECT
0065 01 MESSAGE TRANSMITTED POWER BELOW NORMAL
0069 01 OTHER PROBLEMS
0070 01 ALL SYSTEMS IN NORMAL OPERATION
0099 01 STATUS OF SYSTEM AND ITS COMPONENTS NOT SPECIFIED
0127 01 MISSING VALUE
002015 0006 0001 01 PRESSURE ONLY RADIOSONDE
0002 01 PRESSURE ONLY RADIOSONDE PLUS TRANSPONDER
0003 01 PRESSURE ONLY RADIOSONDE PLUS RADAR REFLECTOR
0004 01 NO PRESSURE RADIOSONDE PLUS TRANSPONDER
0005 01 NO PRESSURE RADIOSONDE PLUS RADAR REFLECTOR
0015 01 MISSING VALUE
002016 0004 0001 01 TRAIN REGULATOR
0002 01 LIGHT UNIT
0003 01 PARACHUTE
0004 01 ROOFTOP RELEASE
002020 0024 0000 01 NIMBUS
0001 VTPR
0002 Tiros 1 (Tiros, NOAA-6 to NOAA-13)
0003 Tiros 2 (NOAA-14 onwards)
0010 EOS
0031 DMSP
0061 EUMETSAT Polar System (EPS)
0091 ERS
0121 ADEOS
0241 GOES
0261 JASON
0271 GMS
0272 MTSAT
0301 INSAT
0331 METEOSAT Operational Programme (MOP)
0332 METEOSAT Transitional Programme (MTP)
0333 METEOSAT Second Generation Programme (MSG)
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0351 GOMS
0380 FY-1
0381 FY-2
0401 GPS
0402 GLONASS
0403 GALILEO
0511 MISSING VALUE
002021 0008 0001 01 HIGH RESOLUTION INFRA RED SOUNDER (HIRS)
              0002 01 MICROWAVE SOUNDING UNIT (MSU )
              0003 01 STRATOSPHERIC SOUNDING UNIT (SSU)
              0004 01 AMI WIND MODE
              0005 01 AMI WAVE MODE
              0006 01 AMI IMAGE MODE
              0007 01 RADAR ALTIMETER
              0008 01 ATSR
002022 0005 0001 01 PROCESSING TECHNIQUE NOT DEFINED
              0002 01 AUTOMATED STATISTICAL REGRESSION
              0003 01 CLEAR PATH
              0004 01 PARTLY CLOUDY PATH
              0005 01 CLOUDY PATH
002023 0008 0000 02 WIND DERIVED FROM CLOUD MOTION OBSERVED IN THE WATER VAPOUR
              CHANNEL
              0001 02 WIND DERIVED FROM CLOUD MOTION OBSERVED IN THE INFRARED
              CHANNEL
              0002 01 WIND DERIVED FROM CLOUD MOTION OBSERVED IN THE VISIBLE CHANNEL
              0003 02 WIND DERIVED FROM CLOUD MOTION OBSERVED IN WATER VAPOUR CHANNEL
              (CLOUD OR CLEAR AIR NOT SPECIFIED)
              0004 02 WIND DERIVED FROM MOTION OBSERVED IN COMBINATION OF SPECTRAL
              CHANNELS
              0005 02 WIND DERIVED FROM MOTION OBSERVED IN THE WATER VAPOUR CHANNEL
              IN CLEAR AIR
              0006 01 WIND DERIVED FROM MOTION OBSERVED IN THE OZONE CHANNEL
              0007 01 WIND DERIVED FROM MOTION OBSERVED IN WATER VAPOUR CHANNEL
              (CLOUD OR CLEAR AIR NOT SPECIFIED)
              0008 01 WIND DERIVED FROM ALTIMETER
              0009 01 WIND DERIVED FROM RADIOMETER
              0013 01 ROOT MEAN SQUARE
              0015 01 MISSING VALUE
002024 0003 0001 01 TABLE WITH FULL RANGE OF HUMIDITY VARIATION IN LAYER
              0002 01 REGRESSION TECHNIQUE ON 2 HUMIDITY VALUES IN LAYER
              0015 01 MISSING VALUE
002025 0016 0001 01 RESERVED
              0002 01 HIRS
              0003 01 MSU
              0006 01 HIRS
              0007 01 MSU
              0010 01 HIRS(1, 2, 3, 8,9, 16, 17)
              0011 01 HIRS(1, 2, 3, 9, 17)
              0012 01 MSU
              0015 01 HIRS
              0016 01 HIRS
              0017 01 MSU
              0018 01 SKINTK(OCEAN ONLY)
              0021 01 HIRS
              0022 01 SSU
              0023 01 MSU (3 ,4)
              0025 01 MISSING
002030 0007 0001 01 ADCP (ACOUSTIC DOPPLER CURRENT PROFILER)
              0002 01 GEK (GEOMAGNETIC ELECTRO KINETOGRAPH)
              0003 01 SHIPS'S SET AND DRIFT DETERMINED BY FIXES 3-6 HOURS APART
              0004 02 SHIPS'S SET AND DRIFT DETERMINED BY MORE THAN 6 HOURS
              BUT LESS THAN 12 HOURS APART
              0005 01 DRIFT OF BUOY
              0006 01 ADCP (ACOUSTIC DOPPLER CURRENT PROFILER)
              0007 01 MISSIN VALUE
002031 0021 0000 01 RESERVED
              0001 01 INSTANTANEOUS
              0002 01 AVERAGED OVER 3 MINUTES OR LESS
              0003 01 AVERAGED OVER MORE THAN 3 MINUTES, BUT 6 AT THE MOST
              0004 01 AVERAGED OVER MORE THAN 6 MINUTES, BUT 12 AT THE MOST
              0005 01 INSTANTANEOUS
              0006 01 AVERAGED OVER 3 MINUTES OR LESS
              0007 01 AVERAGED OVER MORE THAN 3 MINUTES, BUT 6 AT THE MOST
              0008 01 AVERAGED OVER MORE THAN 6 MINUTES, BUT 12 AT THE MOST
              0009 01 VECTOR OR DOPPLER CURRENT PROFILING METHOD NOT USED
              0010 01 RESERVED
              0011 01 1 HOUR OR LESS
              0012 01 MORE THAN 1 HOUR BUT 2 AT THE MOST
              0013 01 MORE THAN 2 HOUR BUT 4 AT THE MOST
              0014 01 MORE THAN 4 HOUR BUT 8 AT THE MOST
              0015 01 MORE THAN 8 HOUR BUT 12 AT THE MOST
              0016 01 MORE THAN 12 HOUR BUT 18 AT THE MOST
              0017 01 MORE THAN 18 HOUR BUT 24 AT THE MOST
              0018 01 RESERVED
              0019 01 DRIFT METHOD NOT USED
              0031 01 MISSING
002032 0004 0000 02 VALUES AT SELECTED DEPTHS (DATA POINTS FIXED BY THE INSTRUME
              NT OR SELECTED BY ANY OTHER METHOD)
              0001 02 VALUES AT SIGNIFICANT DEPTHS (DATA POINTS TAKEN FROM TRACES
              AT SIGNIFICANT DEPTHS)
              0002 01 RESERVED
              0003 01 MISSING VALUE
002033 0005 0000 01 NO SALINITY MEASURED

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0001 01 IN SITU SENSOR, ACCURACY BETTER THAN 0.02 %
0002 01 IN SITU SENSOR, ACCURACY LESS THAN 0.02 %
0003 01 SAMPLE ANALYSIS
0007 01 MISSING VALUE
002034 0007 0000 01 UNSPECIFIED DROGUE
0001 01 HOLEY SOCK
0002 01 TRISTAR
0003 01 WINDOW SHADE
0004 01 PARACHUTE
0005 01 NON-LAGRANGIAN SEA ANCHOR
0031 01 MISSING VALUE
002036 0004 0000 01 DRIFTING BUOY
0001 01 FIXED BUOY
0002 01 RESERVED
0003 01 MISSING VALUE
002037 0007 0000 01 REASERVED
0001 01 MANUAL READING FROM VERTICAL TIDE STAFF
0002 01 MANUAL READING FROM SINGLE AUTOMATIC RECORDER AT STATION
0003 01 MANUAL READING FROM MULTIPLE AUTOMATIC RECORDERS AT STATION
0004 02 AUTOMATIC READING FROM SINGLE AUTOMATIC RECORDER AT STATION
WITHOUT LEVEL REFERENCE CHECK
0005 02 AUTOMATIC READING FROM SINGLE AUTOMATIC RECORDER AT STATION
WITH LEVEL REFERENCE CHECK,OR MULTIPLE AUTOMATIC RECORDERS
0007 01 MISSING
002038 0012 0000 01 SHIP INTAKE
0001 01 BUCKET
0002 01 HULL CONTACT SENSOR
0003 01 REVERSING THERMOMETER
0004 01 STD/CTD SENSOR
0005 01 MECHANICAL BT
0006 01 EXPANDABLE BT
0007 01 DIGITAL BT
0008 01 THERMISTOR CHAIN
0009 01 INFRARED SCANNER
0010 01 MICROWAVE SCANNER
0015 01 MISSING VALUE
002039 0005 0000 01 MEASURED WET-BULB TEMPERATURE
0001 01 ICED BULB MEASURED WET-BULB TEMPERATURE
0002 01 COMPUTED WET-BULB TEMPERATURE
0003 01 ICED BULB COMPUTED WET-BULB TEMPERATURE
0007 01 MISSING VALUE
002041 0005 0000 01 INFORMATION BASED ON MANUAL ANALYSIS
0001 01 INFORMATION BASED ON COMPUTER ANALYSIS
0002 01 INFORMATION BASED ON DATA ASSIMILATION
0003 02 INFORMATION BASED ON COMPUTER ANALYSIS OR DATA ASSIMILATIO
N MANUALLY MODIFIED
0063 01 MISSING VALUE
002040 0008 0000 01 SHIPS MOTION REMOVED BY AVARAGING
0001 01 SHIPS MOTION REMOVED BY MOTION COMPENSATION
0002 01 SHIPS MOTION NOT REMOVED
0003 01 SHIPS MOTION REMOVED BY AVERAGING
0004 01 SHIPS MOTION REMOVED BY MOTION COMPENSATION
0005 01 SHIPS MOTION NOT REMOVED
0006 01 DOPPLER CURRENT PROFILING METHOD NOT USED
0015 01 MISSING VALUE
002041 0006 0000 01 INFORMATION BASED ON MANUAL ANALYSIS
0001 01 INFORMATION BASED ON COMPUTER ANALYSIS
0002 01 INFORMATION BASED ON DATA ASSIMILATION
0003 02 INFORMATION BASED ON COMPUTER ANALYSIS OR
DATA ASSIMILATION MANUALLY MODIFIED
0010 01 INFORMATION BASED ON THE NUMERICAL WEATHER PREDICTION
0063 01 MISSING VALUE
002044 0006 0000 01 RESERVED
0001 01 LONGUET-HIGGINS (1964)
0002 01 LONGUET-HIGGINS (F3 METHOS)
0003 01 MAXIMUM LIKELIHOOD METHOD
0004 01 MAXIMUM ENTROPY METHOD
0015 01 MISSING VALUE
002045 0005 0000 01 SEA STATION
0001 01 AUTOMATIC DATA BUOY
0002 01 AIRCRAFT
0003 01 SATELLITE
0015 01 MISSING VALUE
002046 0004 0000 01 RESERVED
0001 01 HEAVE SENSOR
0002 01 SLOPE SENSOR
0015 01 MISSING VALUE
002048 0012 0000 01 HIRS
0001 01 MSU
0002 01 SSU
0003 01 AMSU-A
0004 01 AMSU-B
0005 01 AVHRR
0006 01 SSMI
0007 01 NSCAT
0008 01 SEA WINDS
0009 01 POSEIDON ALTIMETER
0010 01 JMR (JASON MICROWAVE RADIOMETER)
0015 01 MISSING VALUE
002049 0004 0001 01 PROCESSING TECHNIQUE NOT DEFINED
0002 01 SIMULTANIOUS PHISICAL RETRIEVAL
0003 01 CLEAR SOUNDING
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0004 01 CLOUDY COUNTING
002050 0019 0001 01 CHANNEL 1 14.71 MICROMETERS
0002 01 CHANNEL 2 14.37 MICROMETERS
0003 01 CHANNEL 3 14.06 MICROMETERS
0004 01 CHANNEL 4 13.64 MICROMETERS
0005 01 CHANNEL 5 13.37 MICROMETERS
0006 01 CHANNEL 6 12.66 MICROMETERS
0007 01 CHANNEL 7 12.02 MICROMETERS
0008 01 CHANNEL 8 11.03 MICROMETERS
0009 01 CHANNEL 9 9.71 MICROMETERS
0010 01 CHANNEL 10 7.43 MICROMETERS
0011 01 CHANNEL 11 7.02 MICROMETERS
0012 01 CHANNEL 12 6.51 MICROMETERS
0013 01 CHANNEL 13 4.57 MICROMETERS
0014 01 CHANNEL 14 4.52 MICROMETERS
0015 01 CHANNEL 15 4.45 MICROMETERS
0016 01 CHANNEL 16 4.13 MICROMETERS
0017 01 CHANNEL 17 3.98 MICROMETERS
0018 01 CHANNEL 18 3.74 MICROMETERS
0019 01 CHANNEL 19 0.969 MICROMETERS
002051 0004 0001 01 MAXIMUM/MINIMUM THERMOMETERS
0002 01 AUTOMATED INSTRUMENT
0003 01 THERMOGRAPH
0015 01 MISSING VALUE
002052 0005 0001 01 CHANNEL 1 0.55-.75 MICROMETERS
0002 01 CHANNEL 2 3.9 MICROMETERS
0003 01 CHANNEL 3 6.7 MICROMETERS
0004 01 CHANNEL 4 10.7 MICROMETERS
0005 01 CHANNEL 5 12.0 MICROMETERS
002053 0005 0000 01 OBSERVED BRIGHTNESS TEMPERATURES
0001 01 BRIGHTNESS TEMPERATURE WITH BIAS CORRECTION APPLIED
0002 01 BRIGHTNESS TEMPERATURE CALCULATED FROM FIRST GUESS
0003 01 BRIGHTNESS TEMPERATURE CALCULATED FROM SOUNDING
0015 01 MISSING VALUE
002054 0006 0000 01 PARAMETER DERIVED USING OBSERVED SOUNDER BRIGHTNESS TEMPERATURES
0001 01 PARAMETER DERIVED USING OBSERVED IMAGER BRIGHTNESS TEMPERATURES
0002 01 PARAMETER DERIVED USING FIRST GUESS INFORMATION
0003 01 PARAMETER DERIVED USING NMC ANALYSIS INFORMATION
0004 01 PARAMETER DERIVED USING RADIOSONDE INFORMATION
0015 01 MISSING VALUE
002055 0010 0000 01 STATISTICS GENERATED COMPARING RETRIEVAL VERSUS RADIOSONDE
0001 01 STATISTICS GENERATED COMPARING RETRIEVAL VERSUS FIRST GUESS
0002 01 STATISTICS GENERATED COMPARING RADIOSONDE VERSUS FIRST GUESS
0003 01 STATISTICS GENERATED COMPARING OBSERVED VERSUS RETRIEVAL
0004 01 STATISTICS GENERATED COMPARING OBSERVED VERSUS FORST GUESS
0005 01 STATISTICS GENERATED COMPARING RADIOSONDE VERSUS IMAGER
0006 01 STATISTICS GENERATED COMPARING RADIOSONDE VERSUS SOUNDER
0007 01 STATISTICS GENERATED FOR RADIOSONDE
0008 01 STATISTICS GENERATED FOR FIRST GUESS
002056 0006 0000 01 SUMS OF DIFFERENCE
0001 01 SUMS OF SQUARED DIFFERENCES
0002 01 SAMPLE SIZE
0003 01 MINIMUM DIFFERENCE
0004 01 MAXIMUM DIFFERENCE
0015 01 MISSING VALUE
002057 0007 0000 01 NESTED GRID MODEL (NMG)
0001 01 AVIATION MODEL (AVN)
0002 01 MEDIUM RANGE FORECAST (MRF) MODEL
0003 01 GLOBAL DATA ASSIMILATION SYSTEM (GDAS) FORECAST MODEL
0004 01 PRIOR SOUNDINGS (WITHIN 3 HOURS OF CURRENT TIME)
0005 01 CLIMATOLOGY
002058 0005 0000 01 12 HOUR AND 18 HOUR
0001 01 18 HOUR AND 24 HOUR
0002 01 6 HOUR AND 12 HOUR
0003 01 GREATER THAN 24 HOUR
0015 01 MISSING VALUE
002059 0005 0000 01 NCEP NESTED GRID MODEL ANALYSIS
0001 01 NCEP AVIATION MODEL ANALYSIS
0002 01 NCEP MEDIUM RANGE FORECAST MODEL ANALYSIS
0003 01 NCEP GLOBAL DATA ASSIMILATION SYSTEM FORECAST MODEL ANALYSIS
0015 01 MISSING VALUE
002060 0007 0000 01 CURRENT SURFACE HOURLY REPORTS
0001 01 CURRENT SHIP REPORTS
0002 01 CURRENT BUOY REPORTS
0003 01 ONE HOUR OLD SURFACE HOURLY REPORTS
0004 01 ONE HOUR SHIP OLD REPORTS
0005 01 ONE HOUR BUOY OLD REPORTS
0015 01 MISSING VALUE
002061 0003 0000 01 INERTIAL NAVIGATOR SYSTEM
0001 01 OMEGA
0007 01 MISSING VALUE
002062 0007 0000 01 ASDAR
0001 01 ASDAR (ACARS ALSO AVAILABLE BUT NOT OPERATIVE)
0002 01 ASDAR (ACARS ALSO AVAILABLE AND OPERATIVE)
0003 01 ACARS
0004 01 ACARS (ASDAR ALSO AVAILABLE BUT NOT OPERATIVE)
0005 01 ACARS (ASDAR ALSO AVAILABLE AND OPERATIVE)
0015 01 MISSING VALUE
002064 0004 0000 01 GOOD
0001 01 BAD
0002 01 RESERVED
0003 01 MISSING VALUE
002066 0004 0000 01 TRS 2000

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0001 01 IMS 1500C
0062 01 OTHER
0063 01 MISSING VALUE
002070 0013 0000 01 ACTUAL LOCATION IN SECONDS
0001 01 ACTUAL LOCATION IN MINUTES
0002 01 ACTUAL LOCATION IN DEGREES
0003 01 ACTUAL LOCATION IN DECIDEGREES
0004 01 ACTUAL LOCATION OM CENTIDEGREES
0005 01 REFERENCED TO CHECKPOINT IN SECONDS
0006 01 REFERENCED TO CHECKPOINT IN MINUTES
0007 01 REFERENCED TO CHECKPOINT IN DEGREES
0008 01 REFERENCED TO CHECKPOINT IN DECIDEGREES
0009 01 REFERENCED TO CHECKPOINT IN CENTIDEGREES
0010 01 ACTUAL LOCATION IN TENTHS OF A MINUTE
0011 01 REFERENCED TO CHECKPOINT IN TENTHS OF A MINUTE
0015 01 MISSING VALUE
002080 0005 0000 01 KAYSAM
0001 01 TOTEX
0002 01 KKS
0062 01 OTHER
0063 01 MISSING VALUE
002081 0009 0000 01 GP26
0001 01 GP28
0002 01 GP30
0003 01 HM26
0004 01 HM28
0005 01 HM30
0006 01 SV16
0030 01 OTHER
0031 01 MISSING VALUE
002083 0006 0000 01 HIGH BAY
0001 01 LOW BAY
0002 01 BALLOON INFLATION LAUNCH SYSTEM (BILS)
0003 01 ROOF-TOP BILS
0014 01 OTHER
0015 01 MISSING VALUE
002084 0005 0000 01 HYDROGEN
0001 01 HELIUM
0002 01 NATURAL GAS
0014 01 OTHER
0015 01 MISSING VALUE
002095 0005 0000 01 CAPACITANCE ANEROID
0001 01 DERIVED FROM GPS
0002 01 RESISTIVE STRAIN GAUGE
0030 01 OTHER
0031 01 MISSING VALUE
002096 0005 0000 01 ROD THERMISTOR
0001 01 BEAD THERMISTOR
0002 01 CAPACITANCE BEAD
0030 01 OTHER
0031 01 MISSING VALUE
002097 0008 0000 01 VIZ MARK II CARBON HYGRISTOR
0001 01 VIZ B2 HYGRISTOR
0002 01 VAISALA A-HUMICAP
0003 01 VAISALA H-HUMICAP
0004 01 CAPACITANCE SENSOR
0005 01 VAISALA RS90
0030 01 OTHER
0031 01 MISSING VALUE
002101 0010 0000 01 CENTRE FRONT-FED PARABOLOID
0001 01 OFFSET FRONT-FED PARABOLOID
0002 01 CENTRE CASSEGRAIN PARABOLOID
0003 01 OFFSET CASSEGRAIN PARABOLOID
0004 01 PLANAR ARRAY
0005 01 COAXIAL-COLLINEAR ARRAY
0006 01 YAGI ELEMENTS ARRAY
0007 01 MICROSTRIP
0014 01 OTHER
0015 01 MISSING VALUE
002103 0002 0001 01 RADAR ANTENNA IS PROTECTED BY A RADOME
0002 01 MISSING VALUE
002104 0007 0000 01 HORIZONTAL POLARISATION
0001 01 VERTICAL POLARISATION
0002 01 RIGHT CIRCULAR POLARISATION
0003 01 LEFT CIRCULAR POLARISATION
0004 01 HORIZONTAL AND VERTICAL POLARISATION
0005 01 RIGHT AND LEFT CIRCULAR POLARISATION
0015 01 MISSING VALUE
002115 0007 0000 01 PDB
0001 01 RSOIS
0002 01 ASOS
0003 01 PSYCHROMETER
0004 01 F420
0030 01 OTHER
0031 01 MISSING VALUE
002119 0008 0000 01 INTERMEDIATE FREQUENCY CALIBRATION MODE (IFCAL)
0001 01 BUILT-IN TEST EQUIPMENT DIGITAL (BITE DGT)
0002 01 BUILT-IN TEST EQUIPMENT RADIO FREQUENCY (BITE RF)
0003 01 PRESET TRACKING (PSET TRK)
0004 01 PRESET LOOP OUT
0005 01 ACQUISITION
0006 01 TRACKING
0007 01 MISSING VALUE
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002131 0001 0001 01 STC OPERATIONAL
002143 0021 0000 01 RESERVED
          0001 01 Brewer spectrophotometer
          0002 01 Caver Teichert
          0003 01 Dobson
          0004 01 Dobson (Japan)
          0005 01 Ehmet
          0006 01 Fecker telescope
          0007 01 Hoelper
          0008 01 Jodmeter
          0009 01 Filter Ozonometer M-83
          0010 01 Mast
          0011 01 Oxford
          0012 01 Paetzold
          0013 01 Regener
          0014 01 Reserved for future use
          0015 01 Vassy filter Ozonometer
          0016 01 Carbon iodide
          0017 01 Surface ozone bubler
          0018 01 Filter Ozonometer M-124
          0019 01 ECC sonde
          0127 01 MISSING VALUE
002144 0008 0000 01 Direct Sun
          0001 01 Direct Sun, attenuator #1
          0002 01 Direct Sun, attenuator #2
          0003 01 Focussed Moon
          0004 01 Focussed Sun
          0005 01 Focussed Sun corrected with adjacent sky measurements
          0006 01 Zenith Sky
          0015 01 MISSING VALUE
002216 0017 0001 01 CALIBRATION/MEASUREMENT PULSE FLAG (1)
          0002 01 CALIBRATION/MEASUREMENT PULSE FLAG (2)
          0003 01 OUTER ANTENNA BEAM
          0004 01 SIGMA-0 CELL IS AFT OF SPACECRAFT
          0005 01 CURRENT MODE (1)
          0006 01 CURRENT MODE (2)
          0007 01 EFFECTIVE GATE WIDTH - SLICE RESOLUTION (1)
          0008 01 EFFECTIVE GATE WIDTH - SLICE RESOLUTION (2)
          0009 01 EFFECTIVE GATE WIDTH - SLICE RESOLUTION (3)
          0010 01 LOW RESOLUTION MODE - WHOLE PULSE DATA
          0011 01 SCATTEROMETER ELECTRONIC SUBSYSTEM B
          0012 01 ALTERNATE SPIN RATE - 19.8 RPM
          0013 01 RECEIVER PROTECTION ON
          0014 01 SLICES PER COMPOSITE FLAG(1)
          0015 01 SLICES PER COMPOSITE FLAG(2)
          0016 01 SLICES PER COMPOSITE FLAG(3)
          0017 01 MISSING VALUE
002131 0002 0001 01 STC OPERATIONAL
          0003 01 MISSING VALUE
002143 0021 0000 01 RESERVED
          0001 01 BREWER SPECTROMETER
          0002 01 CAVER TEICHERT
          0003 01 DOBSON
          0004 01 DOBSON (JAPAN)
          0005 01 EHMET
          0006 01 FECKER TELESCOPE
          0007 01 HOELPER
          0008 01 JODMETER
          0009 01 FILTER OZONOMETER M-83
          0010 01 MAST
          0011 01 OXFORD
          0012 01 PAETZOLD
          0013 01 REGENER
          0014 01 RESERVED
          0015 01 VASSY FILTER OZONOMETER
          0016 01 CARBON IODIDE
          0017 01 SURFACE OZONE BUBLER
          0018 01 FILTER OZONOMETER M-124
          0019 01 ECC SONDE
          0127 01 MISSING VALUE
002144 0008 0000 01 DIRECT SUN, ATTENUATOR #0
          0001 01 DIRECT SUN, ATTENUATOR #1
          0002 01 DIRECT SUN, ATTENUATOR #2
          0003 01 FOCUSSED MOON
          0004 01 FOCUSSED SUN
          0005 01 FOCUSSED SUN CORRECTED WITH ADJACENT SKY MEASUREMENTS
          0006 01 ZENITH SKY
          0015 01 MISSING VALUE
002145 0009 0000 01 WAVELENGTH AD ORDINARY SETTING
          0001 01 WAVELENGTH BD ORDINARY SETTING
          0002 01 WAVELENGTH CD ORDINARY SETTING
          0003 01 WAVELENGTH CC' ORDINARY SETTING
          0004 01 WAVELENGTH AD FOCUSING IMAGE
          0005 01 WAVELENGTH BD FOCUSING IMAGE
          0006 01 WAVELENGTH CD FOCUSING IMAGE
          0007 01 WAVELENGTH CC' FOCUSING IMAGE
          0015 01 MISSING VALUE
002146 0011 0000 01 ON DIRECT SUN
          0001 01 ON DIRECT MOON
          0002 01 ON BLUE ZENITH SKY
          0003 01 ON ZENITH CLOUD (UNIFORM STRATIFIED LAYER OF SMALL OPACITY)
          0004 01 ON ZENITH CLOUD (UNIFORM OR MODERATELY VARIABLE LAYER OF MEDIUM OPACITY)
          0005 01 ON ZENITH CLOUD (UNIFORM OR MODERATELY VARIABLE LAYER OF LARGE OPACITY)

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0006 01 ON ZENITH CLOUD (HIGHLY VARIABLE OPACITY, WITH OR WITOUT PRECIPITATION)
0007 01 ON ZENITH CLOUD (FOG)
0008 01 ON ZENITH HAZE
0009 01 ON DIRECT SUN THROUGH THIN CLOUD, FOG OR HAZE
0015 01 MISSING VALUE
002148 0006 0000 01 RESERVED
0001 01 ARGOS
0002 01 GPS
0003 01 GOES DCP
0004 01 METEOSAT DCP
0031 01 MISSING VALUE
002149 0022 0000 01 Unspecified drifting buoy
0001 01 Standard Lagrangian drifter (Global Drifter Programme)
0002 01 Standard FGGE type drifting buoy
0003 01 Wind measuring FGGE type drifting buoy
0004 01 Ice float
0008 01 Unspecified sub-surface float
0009 01 SOFAR
0010 01 ALACE
0011 01 MARVOR
0012 01 RAFOS
0016 01 Unspecified moored buoy
0017 01 Nomad
0018 01 3-metre discus
0019 01 10-12-metre discus
0020 01 ODAS 30 series
0021 01 ATLAS (e.g. TAO area)
0022 01 TRITON buoy
0023 01 Reserved
0024 01 Omnidirectional waverider
0025 01 Directional waverider
0026 01 Sub-surface ARGO float
0063 01 MISSING VALUE
002150 0055 0000 01 RESERVED
0001 01 HIRS 1
0002 01 HIRS 2
0003 01 HIRS 3
0004 01 HIRS 4
0005 01 HIRS 5
0006 01 HIRS 6
0007 01 HIRS 7
0008 01 HIRS 8
0009 01 HIRS 9
0010 01 HIRS 10
0011 01 HIRS 11
0012 01 HIRS 12
0013 01 HIRS 13
0014 01 HIRS 14
0015 01 HIRS 15
0016 01 HIRS 16
0017 01 HIRS 17
0018 01 HIRS 18
0019 01 HIRS 19
0020 01 HIRS 20
0021 01 MSU 1
0022 01 MSU 2
0023 01 MSU 3
0024 01 MSU 4
0025 01 SSU 1
0026 01 SSU 2
0027 01 SSU 3
0028 01 AMSU-A 1
0029 01 AMSU-A 2
0030 01 AMSU-A 3
0031 01 AMSU-A 4
0032 01 AMSU-A 5
0033 01 AMSU-A 6
0034 01 AMSU-A 7
0035 01 AMSU-A 8
0036 01 AMSU-A 9
0037 01 AMSU-A 10
0038 01 AMSU-A 11
0039 01 AMSU-A 12
0040 01 AMSU-A 13
0041 01 AMSU-A 14
0042 01 AMSU-A 15
0043 01 AMSU-B 1
0044 01 AMSU-B 2
0045 01 AMSU-B 3
0046 01 AMSU-B 4
0047 01 AMSU-B 5
0048 01 AVHRR 1
0049 01 AVHRR 2
0050 01 AVHRR 3a
0051 01 AVHRR 3b
0052 01 AVHRR 4
0053 01 AVHRR 5
0063 01 MISSING VALUE
002151 0009 0000 01 HIRS
0001 01 MSU
0002 01 SSU
0003 01 AMSU-A1-1
0004 01 AMSU-A1-2
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0005 01 AMSU-A2
0006 01 AMSU-B
0007 01 AVHRR
2047 01 MISSING VALUE
002152 0011 0001 01 High-resolution infrared sounder(HIRS)
              0002 01 Microwave sounding unit (MSU)
              0003 01 Stratospheric sounding unit (SSU)
              0004 01 AMI wind mode
              0005 01 AMI wave mode
              0006 01 AMI image mode
              0007 01 RADAR altimeter
              0008 01 ATSR
              0009 01 Geostationary Imager
              0010 01 Geostationary Sounder
              0011 01 Geostationary Earth radiation (GERB)
002158 0008 0001 01 Mismatch in RED VEC HPA
              0002 01 Mismatch in RED VEC RFSS
              0003 01 PTR calibration band 320 MHz (Ku)
              0004 01 PTR calibration band 80 MHz (Ku)
              0005 01 PTR calibration band 20 MHz (Ku)
              0006 01 PTR calibration band 160 MHz (S)
              0007 01 Ku flight calibration parameters available
              0008 01 S flight calibration parameters available
002159 0005 0001 01 Temperature inconsistency
              0002 01 Data is missing
              0003 01 Redundancy channel
              0004 01 Power bus protection
              0005 01 Overvoltage/Overload protection
002163 0015 0000 01 Auto editor
              0001 01 IRW height assignment
              0002 01 WV height assignment
              0003 01 H2O intercept height assignment
              0004 01 CO2 slicing height assignment
              0005 01 Low pixel max gradient
              0006 01 Higher pixel max gradient
              0007 01 Primary height assignment
              0008 01 Layer thickness assignment
              0009 01 Cumulative contribution function -10 percent height
              0010 01 Cumulative contribution function -50 percent height
              0011 01 Cumulative contribution function -90 percent height
              0012 02 Cumulative contribution function - height of
                  maximum gradient
              0014 01 Composite height assignment
              0015 01 MISSING VALUE
002164 0004 0000 01 LP - Norms least square minimum
              0001 01 EN - Euclidean norm with radiance correlation
              0002 01 CC - Cross correlation
              0007 01 MISSING VALUE
002166 0006 0000 01 Type not defined
              0001 01 Automated statistical regression
              0002 01 Clear path
              0003 01 Partly cloudy path
              0004 01 Cloudy path
008035 0000 0000 01 Global
              0001 01 Regional
              0002 01 National
              0003 01 Special
              0004 01 Bilateral
              0005 01 Reserved
              0006 01 Reserved
              0007 01 MISSING0015 01 MISSING VALUE
002167 0004 0000 01 Method not define
              0001 01 1b raw radiance
              0002 01 processed radiance
              0015 01 MISSING VALUE
002169 0004 0000 01 Cup rotor
              0001 01 Propeller rotor
              0002 01 Wind Observation Through Ambient Noise (WOTAN)
              0015 01 MISSING VALUE
002172 0003 0001 01 Retrieval from a nadir sounding
              0002 01 Retrieval from a limb sounding
              0255 01 MISSING VALUE
002175 0009 0000 01 Manual measurement
              0001 01 Tipping bucket method
              0002 01 Weighing method
              0003 01 Optical method
              0004 01 Pressure method
              0005 01 Float method
              0006 01 Drop counter method
              0014 01 Other
              0015 01 MISSING VALUE
002176 0006 0000 01 Manual observation
              0001 01 Video camera method
              0002 01 Infra-red method
              0003 01 Laser method
              0014 01 Other
              0015 01 MISSING VALUE
002177 0005 0000 01 Manual observation
              0001 01 Ultrasonic method
              0002 01 Video camera method
              0014 01 Other
              0015 01 MISSING VALUE
002178 0005 0000 01 Manual observation

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0001 01 Optical method
0002 01 Capacitive method
0014 01 Other
0015 01 MISSING VALUE
002179 0006 0000 01 Manual observation
0001 01 VAISALA algorithm
0002 01 ASOS (FAA) algorithm
0003 01 AWOS (Canada) algorithm
0014 01 Other
0015 01 MISSING VALUE
002180 0008 0000 01 Manual observation
0001 02 Optical scatter system combined with precipitation
    occurrence sensing system
0002 01 Forward and/or back-scatter system of visible light
0003 01 Forward and/or back-scatter system of infrared light
0004 01 Infrared light emitting diode (IRED) system
0005 01 Doppler radar system
0014 01 Other
0015 01 MISSING VALUE
002181 0005 0001 01 Rain detector
0002 01 Freezing rain sensor
0003 01 Ice detection sensor
0004 01 Hail and ice pellet sensor
0020 01 Other
002182 0007 0000 01 Manual measurement
0001 01 Transmissometer system (base > 25)
0002 01 Transmissometer system (base < 25 m)
0003 01 Forward scatter system
0004 01 Back scatter system
0014 01 Other
0015 01 MISSING VALUE
002183 0009 0000 01 Manual observation
0001 01 Ceilometer system
0002 01 Infrared camera system
0003 01 Microwave visual camera system
0004 01 Sky imager system
0005 01 Video time lapsed camera system
0006 01 Micro pulse lidar (MPL) system
0014 01 Other
0015 01 MISSING VALUE
002184 0008 0000 01 Manual observation
0001 01 Lightning imaging sensor
0002 01 Electrical storm identification sensor
0003 01 Magnetic finder sensor
0004 01 Lightning strike sensor
0005 01 Flash counter
0014 01 Other
0015 01 MISSING VALUE
002185 0007 0000 01 Manual measurement
0001 01 Balanced floating method
0002 01 Pressure method
0003 01 Ultrasonic method
0004 01 Hydraulic method
0014 01 Other
0015 01 MISSING VALUE
002186 0023 0001 01 Precipitation-unknown type
0002 01 Liquid precipitation not freezing
0003 01 Liquid freezing precipitation
0004 01 Drizzle
0005 01 Rain
0006 01 Solid precipitation
0007 01 Snow
0008 01 Snow grains
0009 01 Snow pellets
0010 01 Ice pellets
0011 01 Ice crystals
0012 01 Diamond dust
0013 01 Small hail
0014 01 Hail
0015 01 Glaze
0016 01 Rime
0017 01 Soft rime
0018 01 Hard rime
0019 01 Clear ice
0020 01 Wet snow
0021 01 Hoar frost
0022 01 Dew
0023 01 White dew
002187 0011 0001 01 Dust/sand whirl
0002 01 Squalls
0003 01 Sand storm
0004 01 Dust storm
0005 01 Lightning - cloud to surface
0006 01 Lightning - cloud to cloud
0007 01 Lightning - distant
0008 01 Thunderstorm
0009 01 Funnel Cloud not touching surface
0010 01 Funnel cloud touching surface
0011 01 Spray
002188 0010 0001 01 Fog
0002 01 Ice fog
0003 01 Steam fog
0007 01 Mist
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0008 01 Haze
0009 01 Smoke
0010 01 Volcanic ash
0011 01 Dust
0012 01 Sand
0013 01 Snow
002189 0004 0001 01 Manual observation
0002 01 All lightning strikes without discrimination
0003 01 Lightning strikes cloud to ground only
0004 02 All lightning strikes with discrimination between
cloud to ground and cloud to cloud
002194 0002 0000 01 FGGE
0015 01 MISSING VALUE
002196 0017 0000 01 Nimbus
0001 01 VTFR
0002 01 TIROS 1 ( TIROS NOAA 6 to NOAA 13)
0003 01 TIROS 2 ( NOAA-14 ONWARD)
0031 01 DMSP
0061 01 EUMETSAT POLAR SYSTEM (EPS)
0091 01 ERS
0121 01 ADEOS
0241 01 GOES
0271 01 GMS
0301 01 INSAT
0331 01 METEOSAT OPERATIONAL PROGRAMME (MOP)
0332 01 METEOSAT TRANSITIONAL PROGRAMME (MTP)
0333 01 METEOSAT SECOND GENERATION PROGRAMME (MSG)
0351 01 GOMS
0381 01 FY-2
0512 01 MISSING VALUE
002252 0012 0001 01 HIGH-RESOLUTION INFRARED SOUNDER (HIRS)
0002 01 STRATOSPHERIC SOUNDING UNIT (SSU)
0003 01 STRATOSPHERIC SOUNDING UNIT (SSU)
0004 01 AMI WIND MODE
0005 01 AMI WAVE MODE
0006 01 AMI IMAGE MODE
0007 01 RADAR ALTIMETER
0008 01 ATSR
0009 01 GEOSTATIONARY IMAGER
0010 01 GEOSTATIONARY SOUNDER
0011 01 GEOSTATIONARY EARTH RADIATION (GERB)
0031 01 ALL BITS SET - MISSING VALUE
002199 0004 0000 01 RESERVED
0001 01 TABLE WITH FULL RANGE OF HUMMIDITY VALUES IN LAYER
0002 01 REGRESSION TECHNIQUE ON 2 HUMMIDITY VALUES IN LAYER
0015 01 MISSING VALUE
002231 0010 0000 01 RESERVED
0001 01 IRW HEIGHT ASSIGNMENT
0002 01 WV HEIGHT ASSIGNMENT
0003 01 H2O INTERCEPT HEIGHT ASSIGNMENT
0004 01 CO2 SLICING HEIGHT ASSIGNMENT
0005 01 LOW PIXEL MAX GRADIENT
0006 01 HIGHER PIXEL MAX GRADIENT
0007 01 PRIMARY HEIGHT ASSIGNMENT
0008 01 LAYER THICKNESS ASSIGNMENT
0015 01 MISSING VALUE
002232 0004 0000 01 P - NORMS LEAST SQUARE MINIMUM
0001 01 EN - EUCLIDEAN NORM WITH RADIANCE CORRELATION
0002 01 CC - CROSS CORRELATION
0003 01 MISSING VALUE
002251 0004 0000 01 METHOD NOT DEFINED
0001 01 1B RAW RADIANCE
0002 01 PROCESSED RADIANCE
0015 01 MISSING VALUE
002254 0006 0000 01 TYPE NOT DEFINED
0001 01 AUTOMATED STATISTICAL REGRESSION
0002 01 CLEAR PATH
0003 01 PARTLY CLOUDY PATH
0004 01 CLOUDY PATH
0015 01 MISSING VALUE
004059 0005 0001 01 00 UTC
0002 01 06 UTC
0003 01 12 UTC
0004 01 18 UTC
0005 01 Other hours
008001 0007 0001 01 SURFACE
0002 01 STANDARD LEVEL
0003 01 TROPOPAUSE LEVEL
0004 01 MAXIMUM WIND LEVEL
0005 01 SIGNIFICANT LEVEL, TEMPERATURE
0006 01 SIGNIFICANT LEVEL, WIND
0007 01 MISSING VALUE
008002 0013 0000 02 OBSERVING RULES FOR BASE OF LOWEST CLOUD AND CLOUD TYPES OF
FM 12-IX EXT. SYNOP AND FM 13-IX EXT. SHIP APPLY
0001 01 FIRST NON - Cb SIGNIFICANT LAYER
0002 01 SECOND NON - Cb SIGNIFICANT LAYER
0003 01 THIRD NON - Cb SIGNIFICANT LAYER
0004 01 CUMULONIMBUS LAYER
0005 01 CEILING
0006 01 CLOUD NOT DETECTED BELOW THE FOLLOWING HEIGHT(S)
0007 01 LOW CLOUD
0008 01 MIDDLE CLOUD
0009 01 HIGH CLOUD

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0010 02 Cloud layer with base below the station level and top
      above the station level
0011 01 Cloud layer with base and top below the station level
0063 01 MISSING VALUE
008003 0009 0000 01 SURFACE
      0001 01 BASE OF SATELLITE SOUNDING
      0002 01 CLOUD TOP
      0003 01 TROPOPAUSE
      0004 01 PRECIPITABLE WATER
      0005 01 SOUNDING RADIANCES
      0006 01 MEAN TEMPERATURES
      0007 01 OZON
      0063 01 MISSING VALUE
008004 0006 0002 01 UNSTEADY (UNS)
      0003 01 LEVEL FLIGHT, ROUTINE OBSERVATION (LVR)
      0004 01 LEVEL FLIGHT, HIGHEST WIND ENCOUNTERED (LVW)
      0005 01 ASCENDING (ASC)
      0006 01 DESCENDING (DES)
      0007 01 MISSING VALUE
008005 0005 0000 01 RESERVED
      0001 01 STORM CENTRE
      0002 01 OUTER LIMIT OR EDGE OF STORM
      0003 01 LOCATION OF MAXIMUM WIND
      0015 01 MISSING VALUE
008006 0008 0001 01 SURFACE
      0002 01 STANDARD LEVEL
      0003 01 TROPOPAUSE LEVEL
      0004 01 PROMINENT MAXIMUM LEVEL
      0005 01 PROMINENT MINIMUM LEVEL
      0006 01 MINIMUM PRESSURE LEVEL
      0007 01 RESERVED
      0008 01 LEVEL OF UNDETERMINED SIGNIFICANCE
008007 0005 0000 01 POINT
      0001 01 LINE
      0002 01 AREA
      0003 01 VOLUME
      0015 01 MISSING VALUE
008008 0008 0001 01 Surface
      0002 01 Standard level
      0003 01 Tropopause level
      0004 01 Level of beta radiation maximum
      0005 01 Level of gamma radiation maximum
      0006 01 Minimum pressure level
      0007 01 Reserved
      0008 01 Level of undetermined significance
008009 0016 0000 01 Level flight, routine observation, unsteady
      0001 01 Level flight, highest wind encountered, unsteady
      0002 01 Unsteady (UNS)
      0003 01 Level flight, routine observation (LVR)
      0004 01 Level flight, highest wind encountered (LVW)
      0005 01 Ascending (ASC)
      0006 01 Descending (DES)
      0007 02 Ascending, observation intervals selected by
            time increments
      0008 02 Ascending, observation intervals selected by
            time increments, unsteady
      0009 02 Ascending, observation intervals selected by
            pressure increments
      0010 02 Ascending, observation intervals selected by
            pressure increments, unsteady
      0011 02 Descending, observation intervals selected by
            time increments
      0012 02 Descending, observation intervals selected by
            time increments, unsteady
      0013 02 Descending, observation intervals selected by
            pressure increments
      0014 02 Descending, observation intervals selected by
            pressure increments, unsteady
      0015 01 Missing value
008010 0013 0000 01 Reserved
      0001 01 Bare soil
      0002 01 Bare rock
      0003 01 Land grass cover
      0004 01 Water (lake, sea)
      0005 01 Flood water underneath
      0006 01 Snow
      0007 01 Ice
      0008 01 Runway or road
      0009 01 Ship or platform deck in steel
      0010 01 Ship or platform deck in wood
      0011 01 Ship or platform deck partly covered with rubber mat
      0031 01 Missing value
008011 0026 0000 01 QUASI-STATIONARY FRONT AT THE SURFACE
      0001 01 QUASI-STATIONARY FRONT ABOVE THE SURFACE
      0002 01 WARM FRONT AT THE SURFACE
      0003 01 WARM FRONT ABOVE THE SURFACE
      0004 01 COLD FRONT AT THE SURFACE
      0005 01 COLD FRONT ABOVE THE SURFACE
      0006 01 OCCLUSION
      0007 01 INSTABILITY LINE
      0008 01 INTERTROPICAL FRONT
      0009 01 CONVERGENCE LINE
      0010 01 JET STREAM
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0011 01 CLOUD CLEAR
0012 01 CLOUD
0013 01 TURBULENCE
0014 01 STORM
0015 01 AIRFRAME ICING
0016 01 PHENOMENON
0017 01 VOLCANO
0018 01 Atmospheric
0020 01 SPECIAL CLOUDS
0021 01 Thunderstorm (VAL)
0022 01 Tropical cyclone (VAL)
0023 01 Mountain Wave (VAL)
0024 01 Duststorm (VAL)
0025 01 Sandstorm (VAL)
0063 01 MISSING VALUE
008012 0004 0000 01 LAND
0001 01 SEA
0002 01 RESERVED
0003 01 MISSING VALUE
008013 0004 0000 01 night
0001 01 DAY
0002 01 RESERVED
0003 01 MISSING VALUE
008014 0010 0000 01 10-MINUTE MEAN VALUE - NORMAL VALUE
0001 01 10-MINUTE MEAN VALUE - ABOVE THE UPPER LIMIT FOR ASSESSMENT OF RVR (P)
0002 01 10-MINUTE MEAN VALUE - BELOW LOWER LIMIT FOR ASSESSMENT OF RVR (M)
0003 01 ONE MINUTE MINIMUM VALUE - NORMAL VALUE
0004 01 ONE MINUTE MINIMUM VALUE - ABOVE THE UPPER LIMIT FOR ASSESSMENT OF RVR (P)
0005 01 ONE MINUTE MINIMUM VALUE - BELOW LOWER LIMIT FOR ASSESSMENT OF RVR (M)
0006 01 ONE MINUTE MAXIMUM VALUE - NORMAL VALUE
0007 01 ONE MINUTE MAXIMUM VALUE - ABOVE THE UPPER LIMIT FOR ASSESSMENT OF RVR (P)
0008 01 ONE MINUTE MAXIMUM VALUE - BELOW LOWER LIMIT FOR ASSESSMENT OF RVR (M)
0015 01 MISSING VALUE
008016 0005 0000 01 NOSIG
0001 01 BECMG
0002 01 TEMPO
0003 01 FM
0007 01 MISSING VALUE
008017 0004 0000 01 FM
0001 01 TL
0002 01 AT
0003 01 MISSING VALUE
008018 0005 0001 01 LAND IS PRESENT
0002 01 SURFACE ICE MAP INDICATES ICE IS PRESENT
0011 01 ICE MAP DATA NOT AVAILABLE
0012 01 ATTENUATION MAP DATA NOT AVAILABLE
0017 01 MISSING VALUE
008021 0028 0000 01 RESERVED
0001 01 TIME SERIES
0002 01 TIME AVERAGED
0003 01 ACCUMULATED
0004 01 FORECAST
0005 01 FORECAST TIME SERIES
0006 01 FORECAST TIME AVERAGED
0007 01 FORECAST ACCUMULATED
0008 01 ENSEMBLE MEAN
0009 01 ENSEMBLE MEAN TIME SERIES
0010 01 ENSEMBLE MEAN TIME AVERAGED
0011 01 ENSEMBLE MEAN ACCUMULATED
0012 01 ENSEMBLE MEAN FORECAST
0013 01 ENSEMBLE MEAN FORECAST TIME SERIES
0014 01 ENSEMBLE MEAN FORECAST AVERAGED
0015 01 ENSEMBLE MEAN FORECAST ACCUMULATED
0016 01 ANALYSIS
0017 01 START OF PHENOMENON
0018 01 RADIOSONDE LAUNCH TIME
0019 01 START OF ORBIT
0020 01 END OF ORBIT
0021 01 TIME OF ASCENDING NODE
0022 01 TIME OF OCCURENCE OF WIND SHIFT
0027 01 FIRST GUESS --not wmo entry
0028 01 START OF SCAN --not wmo entry
0029 01 END OF SCAN --not wmo entry
0031 01 MISSING VALUE
008023 0010 0002 01 MAXIMUM VALUE
0003 01 MINIMUM VALUE
0004 01 MEAN VALUE
0005 01 MEDIAN VALUE
0006 01 MODAL VALUE
0007 01 MEAN ABSOLUTE ERROR
0009 01 BEST ESTIMATE OF STANDARD DEVIATION (N-1)
0010 01 STANDARD DEVIATION
0011 01 HARMONIC MEAN
0012 01 ROOT MEAN SQUARE VECTOR ERROR
0013 01 ROOT-MEAN-SQUARE
0032 01 PROBABILITY OF GROSS ERROR
0033 01 PRESCRIBED OBSERVATION ERROR
0034 01 PERSISTENCE OBSERVATION ERROR
0035 01 FINAL OBSERVATION ERROR
0036 01 REPRESENTATIVENESS OBSERVATION ERROR
0063 01 MISSING
008024 0012 0002 01 OBSERVED MINUS MAXIMUM
0003 01 OBSERVED MINUS MINIMUM

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0004 01 OBSERVED MINUS MEAN
0005 01 OBSERVED MINUS MEDIAN
0006 01 OBSERVED MINUS MODE
0011 01 OBSERVED MINUS CLIMATOLOGY (ANOMALY)
0012 01 OBSERVED MINUS ANALYZED VALUE
0013 01 OBSERVED MINUS INITIALISED ANALYZED VALUE
0014 01 OBSERVED MINUS FORECAST VALUE
0021 01 OBSERVED MINUS INTERPOLATED VALUE
0022 01 OBSERVED MINUS HYDROSTATICALLY CALCULATED VALUE
0032 01 OBSERVED MINUS FIRST GUESS
0033 01 OBSERVED MINUS ANALYSIS
0034 01 OBSERVED MINUS INITIALIZED ANALYSIS
0063 01 MISSING
008025 0005 0000 02 Universal Time Coordinated (UTC) minus
    Local Standard Time (LST)
    0001 01 LOCAL STANDARD TIME
    0002 01 Universal Time Coordinated (UTC) minus Satellite clock
    0005 01 TIME DIFFERENCE FROM EDGE OF PROCESSING SEGMENT
    0015 01 MISSING
008029 0005 0000 01 Open ocean or semi-enclosed sea
    0001 01 Enclosed sea or lake
    0002 01 Continental ice
    0003 01 Land
    0255 01 MISSING
008033 0004 0000 01 Reserved
    0001 01 Percentage confidence calculated using cloud fraction
    0002 01 Percentage confidence calculated using standard
        deviation of temperature
    0127 01 MISSING
008035 0008 0000 01 Global
    0001 01 Regional
    0002 01 National
    0003 01 Special
    0004 01 Bilateral
    0005 01 Reserved
    0006 01 Reserved
    0007 01 MISSING
008036 0008 0000 01 WMO Secretariat
    0001 01 WMO
    0002 01 RSMC
    0003 01 NMC
    0004 01 RTH
    0005 01 Observing site
    0006 01 Other
    0007 01 MISSING
008039 0004 0000 01 Issue time of forecast
    0001 01 Forecsat time of maximum temperature
    0002 01 Forecsat time of minimum temperature
    0064 01 Missing value
008040 0044 0000 01 High resolution data sample
    0001 01 Within 20 hPa of surface
    0002 02 Pressure less than 10 hPa (i.e., 9, 8, 7, etc.)
        when no other reason applies
    0003 01 Base pressure level for stability index
    0004 01 Begin doubtful temperature, height data
    0005 01 Begin missing data (all elements)
    0006 01 Begin missing RH data
    0007 01 Begin missing temperature data
    0008 02 Highest level reached before balloon
        descent because of icing or turbulence
    0009 01 End doubtful temperature, height data
    0010 01 End missing data (all elements)
    0011 01 End missing RH data
    0012 01 End missing temperature data
    0013 01 Zero degrees C crossing(s) for RADAT
    0014 01 Standard pressure level
    0015 01 Operator added level
    0016 01 Operator deleted level
    0017 01 Balloon re-ascended beyond previous highest ascent level
    0018 01 Significant RH level
    0019 01 RH level selection terminated
    0020 01 Surface level
    0021 01 Significant temperature level
    0022 01 Mandatory temperature level
    0023 01 Flight termination level
    0024 01 Tropopause(s)
    0025 01 Aircraft report
    0026 01 Interpolated (generated) level
    0027 01 Mandatory wind level
    0028 01 Significant wind level
    0029 01 Maximum wind level
    0030 01 Incremental wind level (fixed regional)
    0031 01 Incremental height level (generated)
    0032 01 Wind termination level
    0033 01 Pressure 100 to 110 hPa, when no other reason applies
    0040 01 Significant thermodynamic level (inversion)
    0041 01 Significant RH level ( per NCDC criteria)
    0042 01 Significant temperature level (per NCDC)
    0043 01 Begin missing wind data
    0044 01 End missing wind data
    0060 01 Level of 80-knot isotach above jet
    0061 01 Level of 80-knot isotach below jet
    0062 01 Other
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0063 01 Missing value
008041 0009 0000 01 Parent site
          0001 01 Observation site
          0002 01 Balloon manufacture date
          0003 01 Balloon launch point
          0004 01 Surface observation
          0005 01 Surface observation displacement from launch point
          0006 01 Flight level observation
          0007 01 Flight level termination point
          0031 01 MISSING VALUE
008042 0014 0001 01 Surface
          0002 01 Standard level
          0003 01 Tropopause level
          0004 01 Maximum wind level
          0005 01 Significant temperature level
          0006 01 Significant humidity level
          0007 01 Significant wind level
          0008 01 Beginning of missing temperature data
          0009 01 End of missing temperature data
          0010 01 Beginning of missing humidity data
          0011 01 End of missing humidity data
          0012 01 Beginning of missing wind data
          0013 01 End of missing wind data
          0018 01 ALL 18 MISSING
008050 0011 0000 01 Reserved
          0001 01 Pressure
          0002 01 Temperature
          0003 01 Extreme temperature
          0004 01 Vapour pressure
          0005 01 Precipitation
          0006 01 Sunshine duration
          0007 01 Maximum temperature
          0008 01 Minimum temperature
          0009 01 Wind
          0015 01 Missing value
008051 0007 0001 01 PRESSURE
          0002 01 TEMPERATURE
          0003 01 EXTREME TEMPERATURE
          0004 01 VAPOUR PRESSURE
          0005 01 PRECIPITATION
          0006 01 SUNSHINE DURATION
          0007 01 MISSING VALUE
008052 0026 0000 02 MEAN WIND SPEED OVER 10-MINUTES PERIOD OBSERVED OR RECORDED
          EQUAL TO OR MORE THAN 10 M/S
          0001 02 MEAN WIND SPEED OVER 10-MINUTES PERIOD OBSERVED OR RECORDED
          EQUAL TO OR MORE THAN 20 M/S
          0002 02 MEAN WIND SPEED OVER 10-MINUTES PERIOD OBSERVED OR RECORDED
          EQUAL TO OR MORE THAN 30 M/S
          0003 01 MAXIMUM TEMPERATURE LESS THAN 273.2 K
          0004 01 MAXIMUM TEMPERATURE EQUAL TO OR MORE THAN 298.2 K
          0005 01 MAXIMUM TEMPERATURE EQUAL TO OR MORE THAN 303.2 K
          0006 01 MAXIMUM TEMPERATURE EQUAL TO OR MORE THAN 308.2 K
          0007 01 MAXIMUM TEMPERATURE EQUAL TO OR MORE THAN 313.2 K
          0008 01 MINIMUM TEMPERATURE LESS THAN 273.2 K
          0009 01 MAXIMUM TEMPERATURE EQUAL TO OR MORE THAN 273.2 K
          0010 01 PRECIPITATION EQUAL TO OR MORE THAN 1.0 KG/M**2
          0011 01 PRECIPITATION EQUAL TO OR MORE THAN 5.0 KG/M**2
          0012 01 PRECIPITATION EQUAL TO OR MORE THAN 10.0 KG/M**2
          0013 01 PRECIPITATION EQUAL TO OR MORE THAN 50.0 KG/M**2
          0014 01 PRECIPITATION EQUAL TO OR MORE THAN 100.0 KG/M**2
          0015 01 PRECIPITATION EQUAL TO OR MORE THAN 150.0 KG/M**2
          0016 01 SNOW DEPTH MORE THAN 0.0 M
          0017 01 SNOW DEPTH MORE THAN 0.01 M
          0018 01 SNOW DEPTH MORE THAN 0.10 M
          0019 01 SNOW DEPTH MORE THAN 0.50 M
          0020 01 HORIZONTAL VISIBILITY LESS THAN 50 M
          0021 01 HORIZONTAL VISIBILITY LESS THAN 100 M
          0022 01 HORIZONTAL VISIBILITY LESS THAN 1000 M
          0023 01 HAIL
          0024 01 THUNDERSTORM
          0031 01 MISSING VALUE
008053 0004 0000 01 VALUE OCCURED ON ONLY ONE DAY IN THE MONTH
          0001 01 VALUE OCCURED ON MORE THAN ONE DAY IN THE MONTH
          0002 01 RESERVED
          0003 01 MISSING VALUE
008054 0003 0000 01 Wind speed or gust is as reported
          0001 01 Wind speed is greater than that reprinted (P in METAR/TAF/SPECI)
          0007 01 Missing value
008060 0008 0000 01 RESERVED
          0001 01 RANGE
          0002 01 AZIMUTH
          0003 01 HORIZONTAL
          0004 01 VERTICAL
          0005 01 NORTH/SOUTH
          0006 01 EAST/WEST
          0015 01 MISSING VALUE
008065 0004 0000 01 No sun-glint
          0001 01 Sun-glint
          0002 01 Reserved
          0003 01 Missing value
008066 0004 0000 01 Opaque
          0001 01 Semi-transparent
          0002 01 Reserved

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0003 01 Missing value
008070 0006 0000 01 Reserved
0001 01 Reserved
0002 02 Earth located instrument counts,
    calibration coefficients and housekeeping (level 1b)
0003 01 Earth located calibrated radiances (level 1c)
0004 02 Mapped to a common footprint, earth located
    calibrated radiances (level 1d)
0015 01 MISSING VALUE
008072 0004 0000 01 Mixed
0001 01 Clear
0002 01 Cloudy
0007 01 Missing value
008074 0004 0000 01 Open ocean or semi-enclosed sea
0001 01 Non-ocean like
0002 01 Reserved
0003 01 Missing value
008075 0004 0000 01 Ascending orbit
0001 01 Descending orbit
0002 01 Reserved
0003 01 Missing value
008076 0003 0000 01 Ku
0001 01 C
0063 01 MISSING VALUE
008079 0003 0006 01 Special report ( SPECI)
0007 01 Corrected special report (SPECI COR)
0015 01 Missing value
008193 0007 0000 01 START TIME OF ORBIT
0001 01 END TIME OF ORBIT
0002 01 TIME OF ASCENDING NODE
0003 01 ASSIMILATION TIME
0004 01 START TIME OF ASSIMILATION
0005 01 END TIME OF ASSIMILATION
0063 01 MISSING
008080 0005 0000 01 Total water pressure profile
0001 01 Total water temperature profile
0002 01 Total water salinity profile
0003 01 Total water conductivity profile
0063 01 Missing value
008081 0005 0000 01 Sensor
0001 01 Transmitter
0002 01 Receiver
0003 01 Observing platform
0063 01 MISSING
008082 0003 0000 01 Sensor height is not modified
0001 01 Sensor height is modified to standard level
0007 01 Missing value
008195 0032 0001 01 FIRST GUESS
0002 01 ANALYSIS
0003 01 INITIALISED ANALYSIS
0004 01 OI ANALYSIS
0005 01 3 D VARIATIONAL ANALYSIS
0006 01 4 D VARIATIONAL ANALYSIS
0007 01 3 D VARIATIONAL GRADIENTS
0008 01 4 D VARIATIONAL GRADIENTS
0009 01 FORECAST
0010 01 CONTROL FORECAST
0011 01 PERTURBED FORECAST
0012 01 ERRORS IN FIRST GUESS
0013 01 ERRORS IN ANALYSIS
0014 01 CLUSTER MEANS
0015 01 CLUSTER STANDARD DEVIATIONS
0016 01 FORECAST PROBABILITIES
0017 01 ENSEMBLE MEANS
0018 01 ENSEMBLE STANDARD DEVIATIONS
0019 01 FORECAST ACCUMULATIONS
0020 01 CLIMATOLOGY
0021 01 CLIMATE SIMULATION
0030 01 OBSERVATIONS
0031 01 QUALITY CONTROL
0032 01 DIFFERENCE STATISTICS
0040 01 IMAGE DATA
0050 01 SENSITIVITY GRADIENTS
0051 01 TRAJECTORY FORECAST
0052 01 SENSITIVITY FORECAST
0060 01 PERTURBED ANALYSIS
0061 01 PERTURBATION
0062 01 SINGULAR VECTOR
0127 01 MISSING VALUE
010063 0010 0000 02 INCREASING, THEN DECREASING; ATMOSPHERIC PRESURE THE SAME OR
    HIGHER THAN 3 HOURS AGO (OR 24 HOURS AGO )
0001 01 INCREASING, THEN STEADY; OR INCREASING; THEN MORE SLOWLY
0002 01 INCREASING (STEADILY OR UNSTEADILY )
0003 01 DECREASING OR STEADY, THEN INCREASING; RAPIDLY
0004 02 STEADY; ATMOSPHERIC PRESSURE THE SAME AS 3 HOURS AGO (OR 24
    HOURS)
0005 02 DECREASING; THEN INCREASING; ATMOSPHERIC PRESSURE THE SAME O
    R LOWER THAN 3 HOURS AGO
0006 02 DECREASING, THEN STEADY; OR DECREASING, DECREASING MORE SLOW
    LY
0007 01 DECREASING (STEADILY OR UNSTEADILY )
0008 02 STEADY OR INCREASING, THEN DECREASING; OR DECREASING, THEN
    DECREASING MORE RAPIDLY
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0015 01 MISSING
011031 0009 0000 01 NIL          IN CLOUD
              0001 01 SLIGHT      IN CLOUD
              0002 01 MODERATE     IN CLOUD
              0003 01 SEVERE       IN CLOUD
              0004 01 NIL          IN CLEAR AIR
              0005 01 SLIGHT      IN CLEAR AIR
              0006 01 MODERATE     IN CLEAR AIR
              0007 01 SEVERE       IN CLEAR AIR
              0015 01 MISSING VALUE
011037 0030 0000 01 ave <0.1 peak <0.1
              0001 01 ave <0.1 0.1 <= peak <0.2
              0002 01 0.1 <= ave <0.2 0.1 <= peak <0.2
              0003 01 ave <0.1 0.2 <= peak <0.3
              0004 01 0.1 <= ave <0.2 0.2 <= peak <0.3
              0005 01 0.2 <= ave <0.3 0.2 <= peak <0.3
              0006 01 ave <0.1 0.3 <= peak <0.4
              0007 01 0.1 <= ave <0.2 0.3 <= peak <0.4
              0008 01 0.2 <= ave <0.3 0.3 <= peak <0.4
              0009 01 0.3 <= ave <0.4 0.3 <= peak <0.4
              0010 01 ave <0.1 0.4 <= peak <0.5
              0011 01 0.1 <= ave <0.2 0.4 <= peak <0.5
              0012 01 0.2 <= ave <0.3 0.4 <= peak <0.5
              0013 01 0.3 <= ave <0.4 0.4 <= peak <0.5
              0014 01 0.4 <= ave <0.5 0.4 <= peak <0.5
              0015 01 ave <0.1 0.5 <= peak <0.8
              0016 01 0.1 <= ave <0.2 0.5 <= peak <0.8
              0017 01 0.2 <= ave <0.3 0.5 <= peak <0.8
              0018 01 0.3 <= ave <0.4 0.5 <= peak <0.8
              0019 01 0.4 <= ave <0.5 0.5 <= peak <0.8
              0020 01 0.5 <= ave <0.8 0.5 <= peak <0.8
              0021 01 ave <0.1 0.8 <= peak
              0022 01 0.1 <= ave <0.2 0.8 <= peak
              0023 01 0.2 <= ave <0.3 0.8 <= peak
              0024 01 0.3 <= ave <0.4 0.8 <= peak
              0025 01 0.4 <= ave <0.5 0.8 <= peak
              0026 01 0.5 <= ave <0.8 0.8 <= peak
              0027 01 0.8 <= ave 0.8 <= peak
              0028 01 Nil          Nil
              0063 01 MISSING VALUE
011038 0017 0000 01 min < 1
              0001 01 1 <= min < 2
              0002 01 2 <= min < 3
              0003 01 3 <= min < 4
              0004 01 4 <= min < 5
              0005 01 5 <= min < 6
              0006 01 6 <= min < 7
              0007 01 7 <= min < 8
              0008 01 8 <= min < 9
              0009 01 9 <= min < 10
              0010 01 10 <= min < 11
              0011 01 11 <= min < 12
              0012 01 12 <= min < 13
              0013 01 13 <= min < 14
              0014 01 14 <= min < 15
              0015 01 No timing information available
              0031 01 MISSING VALUE
011039 0016 0000 01 1 <= min < 2
              0001 01 2 <= min < 3
              0002 01 3 <= min < 4
              0004 01 4 <= min < 5
              0005 01 5 <= min < 6
              0006 01 6 <= min < 7
              0007 01 7 <= min < 8
              0008 01 8 <= min < 9
              0009 01 9 <= min < 10
              0010 01 10 <= min < 11
              0011 01 11 <= min < 12
              0012 01 12 <= min < 13
              0013 01 13 <= min < 14
              0014 01 14 <= min < 15
              0060 01 No timing information available
              0063 01 MISSING VALUE
013038 0004 0000 01 NOT SUPERADIABATIC
              0001 01 SUPERADIABATIC
              0002 01 RESERVED
              0003 01 MISSING VALUE
013039 0003 0000 01 SEA ICE
              0001 01 SNOW ON LAND
              0007 01 MISSING VALUE
013040 0009 0000 01 Land
              0001 01 Reserved
              0002 01 Near coast
              0003 01 Ice
              0004 01 Possible ice
              0005 01 Ocean
              0006 01 Coast
              0007 01 Desert
              0015 01 MISSING VALUE
013041 0010 0001 01 A
              0002 01 A-B
              0003 01 B
              0004 01 B-C

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0005 01 C
0006 01 D
0007 01 E
0008 01 F
0009 01 G
0015 01 MISSING VALUE
013051 0008 0000 01 SMALLER THAN ANY VALUE IN THE 30 YEARS PERIOD
0001 01 IN THE FIRST QUINTILE
0002 01 IN THE SECOND QUINTILE
0003 01 IN THE THIRD QUINTILE
0004 01 IN THE FOURTH QUINTILE
0005 01 IN THE FIFTH QUINTILE
0006 01 GREATER THAN ANY VALUE IN THE 30 YEAR PERIOD
0015 01 MISSING VALUE
013202 0007 0000 01 LAND
0001 01 VEGETATION
0003 01 MULTI-YEAR ICE
0004 01 POSSIBLE ICE OR FIRST YEAR ICE
0005 01 OCEAN
0006 01 COASTLINE
0015 01 MISSING
015025 0000 0000 01 Ozone
0015 01 MISSING VALUE
019001 0007 0000 01 DEPRESSION OR LOW (EXTRATROPICAL)
0001 01 TROPICAL DEPRESSION
0002 01 TROPICAL STORM
0003 01 SEVERE TROPICAL STORM
0004 01 TYPHOON
0010 01 DUST/SANDSTORM
0063 01 MISSING VALUE
019008 0005 0000 01 reserved
0001 01 SHALLOW (TOP OF CIRCULATION BELOW 700-HPA LEVEL
0002 01 MEDIUM(TOP BETWEEN 700-HPA AND 400-HPA)
0003 01 DEEP(TOP ABOVE 400-HPA LEVEL
0007 01 MISSING VALUE
019010 0004 0000 01 Reserved
0001 01 Minimum value of sea level pressure
0002 01 Maximum value of 850 hPa relative vorticity
0015 01 Missing value
020003 0250 0000 01 CLOUD DEVELOPMENT NOT OBSERVED OR NOT OBSERVABLE
0001 01 CLOUDS GENERALLY DISSOLVING OR BECOMING LESS DEVELOPED
0002 01 STATE OF SKY ON THE WHOLE UNCHANGED
0003 01 CLOUDS GENERALLY FORMING OR DEVELOPING
0004 02 VISIBILITY REDUCED BY SMOKE, E.G. VELDT OR FOREST FIRES, IN
DUSTRIAL SMOKE OR VOLCANIC ASHES
0005 01 HAZE
0006 02 WIDESPREAD DUST IN SUSPENSION IN THE AIR, NOT RAISED BY WIND
AT OR NEAR THE STATION AT THE TIME OF OBSERVATION
0007 04 DUST OR SEND RAISED BY WIND AT OR NEAR THE STATION AT THE TI
ME OF OBSERVATION, BUT NO WELL-DEVELOPED DUST WHRIL(S) OR SA
ND WHRIL(S), AND NO DUSTSTORM OR SANDSTORM SEEN; OR, IN THE
CASE OF SHIPS, BLOWING SPRAY AT THE STATION
0008 03 WELL-DEVELOPED DUST WHRIL(S) OR SAND WHRILS SEEN AT OR NEAR
THE STATION DURING THE PRECEDING HOUR OR AT THE SAME TIME OF
OBSERVATION, BUT NO DUSTSTORM OR SANDSTORM
0009 02 DUSTSTORM OR SANDSTORM WITHIN SIGHT AT THE TIME OF OBSERVATI
ON, OR AT THE STATION DURING THE PRECEDING HOR
0010 01 MIST
0011 02 PACHES SHALLOW FOG OR ICE AT THE STATION, WHETHER ON LAND OR
SEA, NOT DEEPER THAN 2 METRES ON LAND OR 10 METRES AT SEA
0012 03 MORE OR LESS CONTINUOUS SHALLOW FOG OR ICE AT THE STATION,
WHETHER ON LAND OR SEA, NOT DEEPER THAN 2 METRES ON LAND OR
10 METRES AT SEA
0013 01 LIGHTNING VISIBLE, NO THUNDER HEARD
0014 02 PRECIPITATION WITHIN SIGHT, NOT REACHING THE GROUND OR THE
SURFACE OF THE SEA
0015 03 PRECIPITATION WITHIN SIGHT, REACHING THE GROUND OR THE SURFA
CE OF THE SEA, BUT DISTANT, I.E. ESTIMATED TO BE MORE THAN
5 KM FROM THE STATION
0016 02 PRECIPITATION WITHIN SIGHT, REACHING THE GROUND OR THE SURFA
CE OF THE SEA, NEAR TO, BUT NOT AT THE STATION
0017 02 THUNDERSTORM, BUT NO PRECIPITATION AT THE TIME OF OBSERVATIO
N
0018 02 SQUALLS AT OR WITHIN SIGHT OF THE STATION DURING THE PRECEDI
NG HOUR OR AT THE TIME OF OBSERVATION
0019 02 FUNNEL CLOUD(S) AT OR WITHIN SIGHT OF THE STATION DURING THE
PRECEDING HOUR OR AT THE TIME OF OBSERVATION
0020 03 DRIZZEL (NOT FREEZING) OR SNOW GRAINS NOT FALLING AS SHOWERS
; DURING THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVAT
IONS
0021 02 RAIN (NOT FREEZING) NOT FALLING AS SHOWER(S); DURING THE PRE
CEDING HOUR BUT NOT AT THE TIME OF OBSERVATION
0022 02 SNOW NOT FALLING AS SHOWER(S); DURING THE PRECEDING HOUR BUT
NOT AT THE TIME OF OBSERVATION
0023 02 RAIN AND SNOW OR ICE PELLETS NOT FALLING AS SHOWER(S); DURIN
G THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVATION
0024 02 FREEZING DRIZZEL OR FREEZING RAIN NOT FALLING AS SHOWER(S);
DURING THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVATION
0025 02 SHOWER(S) OF RAIN; DURING THE PRECEDING HOUR BUT NOT AT THE
TIME OF OBSERVATION
0026 02 SHOWER(S) OF SNOW, OR OF RAIN AND SNOW; DURING THE PRECEDING
HOUR BUT NOT AT THE TIME OF OBSERVATION
0027 02 SHOWER(S) OF HAIL, OR OF RAIN AND HAIL; DURING THE PRECEDING
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HOUR BUT NOT AT THE TIME OF OBSERVATION  
 0028 02 FOG OR ICE FOG; DURING THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVATION  
 0029 02 THUNDERSTORM (WITH OR WITHOUT PRECIPITATION); DURING THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVATION  
 0030 02 SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM HAS DECREASED DURING THE PRECEDING HOURS  
 0031 02 SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR  
 0032 02 SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM HAS BEGUN OR HAS INCREASED DURING THE PRECEDING HOUR  
 0033 02 SEVERE DUSTSTORM OR SANDSTORM HAS DECREASED DURING THE PRECEDING HOURS  
 0034 02 SEVERE DUSTSTORM OR SANDSTORM NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR  
 0035 02 SEVERE DUSTSTORM OR SANDSTORM HAS BEGUN OR HAS INCREASED DURING THE PRECEDING HOUR  
 0036 02 SLIGHT OR MODERATE DRIFTING SNOW GENERALLY LOW (BELOW EYE LEVEL)  
 0037 01 HEAVY DRIFTING SNOW GENERALLY LOW (BELOW EYE LEVEL)  
 0038 02 SLIGHT OR MODERATE BLOWING SNOW GENERALLY HIGH (ABOVE EYE LEVEL)  
 0039 01 HEAVY BLOWING SNOW GENERALLY HIGH (ABOVE EYE LEVEL)  
 0040 03 FOG OR ICE FOG AT A DISTANCE AT THE TIME OF OBSERVATION, BUT NOT AT THE STATION DURING THE PRECEDING HOUR, THE FOG OR ICE FOG EXTENDING TO A LEVEL ABOVE THAT OF THE OBSERVER  
 0041 01 FOG OR ICE FOG IN PATCHES  
 0042 02 FOG OR ICE FOG, SKY VISIBLE, HAS BECOME THINNER DURING THE PRECEDING HOUR  
 0043 02 FOG OR ICE FOG, SKY INVISIBLE, HAS BECOME THINNER DURING THE PRECEDING HOUR  
 0044 02 FOG OR ICE FOG, SKY VISIBLE, NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR  
 0045 02 FOG OR ICE FOG, SKY INVISIBLE, NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR  
 0046 02 FOG OR ICE FOG, SKY VISIBLE, HAS BEGUN OR HAS BECOME THICKER DURING THE PRECEDING HOUR  
 0047 02 FOG OR ICE FOG, SKY INVISIBLE, HAS BEGUN OR HAS BECOME THICKER DURING THE PRECEDING HOUR  
 0048 01 FOG, DEPOSITING RIME, SKY VISIBLE  
 0049 01 FOG, DEPOSITING RIME, SKY INVISIBLE  
 0050 02 DRIZZLE, NOT FREEZING, INTERMITTENT; SLIGHT AT TIME OF OBSERVATION  
 0051 02 DRIZZLE, NOT FREEZING, CONTINUOUS ; SLIGHT AT TIME OF OBSERVATION  
 0052 02 DRIZZLE, NOT FREEZING, INTERMITTENT; MODERATE AT TIME OF OBSERVATION  
 0053 02 DRIZZLE, NOT FREEZING, CONTINUOUS ; MODERATE AT TIME OF OBSERVATION  
 0054 02 DRIZZLE, NOT FREEZING, INTERMITTENT; HEAVY (DENSE) AT THE TIME OF OBSERVATION  
 0055 02 DRIZZLE, NOT FREEZING, CONTINUOUS ; HEAVY (DENSE) AT THE TIME OF OBSERVATION  
 0056 01 DRIZZLE, FREEZING, SLIGHT  
 0057 01 DRIZZLE, FREEZING, MODERATE OR HEAVY (DENSE)  
 0058 01 DRIZZLE AND RAIN, SLIGHT  
 0059 01 DRIZZLE AND RAIN, MODERATE OR HEAVY  
 0060 01 RAIN, NOT FREEZING, INTERMITTENT; SLIGHT AT TIME OF OBSERVATION  
 0061 01 RAIN, NOT FREEZING, CONTINUOUS ; SLIGHT AT TIME OF OBSERVATION  
 0062 02 RAIN, NOT FREEZING, INTERMITTENT; MODERATE AT TIME OF OBSERVATION  
 0063 02 RAIN, NOT FREEZING, CONTINUOUS ; MODERATE AT TIME OF OBSERVATION  
 0064 02 RAIN, NOT FREEZING, INTERMITTENT; HEAVY AT TIME OF OBSERVATION  
 0065 01 RAIN, NOT FREEZING, CONTINUOUS; HEAVY AT TIME OF OBSERVATION  
 0066 01 RAIN, FREEZING, SLIGHT  
 0067 01 RAIN, FREEZING, MODERATE OR HEAVY  
 0068 01 RAIN OR DRIZZLE AND SNOW, LIGHT  
 0069 01 RAIN OR DRIZZLE AND SNOW, MODERATE OR HEAVY  
 0070 02 INTERMITTENT FALL OF SNOWFLAKES, SLIGHT AT TIME OF OBSERVATION  
 0071 02 CONTINUOUS FALL OF SNOWFLAKES, SLIGHT AT TIME OF OBSERVATION  
 0072 02 INTERMITTENT FALL OF SNOWFLAKES, MODERATE AT TIME OF OBSERVATION  
 0073 02 CONTINUOUS FALL OF SNOWFLAKES, MODERATE AT TIME OF OBSERVATION  
 0074 02 INTERMITTENT FALL OF SNOWFLAKES, HEAVY AT TIME OF OBSERVATION  
 0075 02 CONTINUOUS FALL OF SNOWFLAKES, HEAVY AT TIME OF OBSERVATION  
 0076 01 DIAMOND DUST (WITH OR WITHOUT FOG)  
 0077 01 SNOW GRAINS (WITH OR WITHOUT FOG)  
 0078 01 ISOLATED STAR-LIKE SNOW CRYSTALS (WITH OR WITHOUT FOG)  
 0079 01 ICE PELLETS  
 0080 01 RAIN SHOWER(S), SLIGHT  
 0081 01 RAIN SHOWER(S), MODERATE OR HEAVY  
 0082 01 RAIN SHOWER(S), VIOLENT  
 0083 01 SHOWER(S) OF RAIN AND SNOW MIXED, SLIGHT  
 0084 01 SHOWER(S) OF RAIN AND SNOW MIXED, MODERATE OR HEAVY  
 0085 01 SNOW SHOWER(S), SLIGHT  
 0086 01 SNOW SHOWER(S), MODERATE OR HEAVY

0087 02 SHOWER(S) OF SNOW PELLETS OR SMALL HAIL, WITH OR WITHOUT RAIN OR RAIN AND SNOW MIXED, SLIGHT  
0088 02 SHOWER(S) OF SNOW PELLETS OR SMALL HAIL, WITH OR WITHOUT RAIN OR RAIN AND SNOW MIXED, MODERATE OR HEAVY  
0089 02 SHOWER(S) OF HAIL, WITH OR WITHOUT RAIN OR RAIN AND SNOW MIXED, NOT ASSOCIATED WITH THUNDER, SLIGHT  
0090 02 SHOWER(S) OF HAIL, WITH OR WITHOUT RAIN OR RAIN AND SNOW MIXED, NOT ASSOCIATED WITH THUNDER, MODERATE OR HEAVY  
0091 02 SLIGHT RAIN AT TIME OF OBSERVATION, THUNDERSTORM DURING THE PRECEDING HOUR BUT NOT AT TIME OF OBSERVATION  
0092 02 MODERATE OR HEAVY RAIN AT TIME OF OBSERVATION, THUNDERSTORM DURING THE PRECEDING HOUR BUT NOT AT TIME OF OBSERVATION  
0093 03 SLIGHT SNOW, OR RAIN AND SNOW MIXED OR HAIL AT TIME OF OBSERVATION, THUNDERSTORM DURING THE PRECEDING HOUR BUT NOT AT TIME OF OBSERVATION  
0094 03 MODERATE OR HEAVY SNOW, OR RAIN AND SNOW MIXED OR HAIL AT TIME OF OBSERVATION, THUNDERSTORM DURING PRECEDING HOUR BUT NOT AT TIME OF OBSERVATION  
0095 03 THUNDERSTORM, SLIGHT OR MODERATE, WITHOUT HAIL, BUT WITH RAIN AND/OR SNOW AT TIME OF OBSERVATION, THUNDERSTORM DURING THE PRECEDING HOUR BUT NOT AT TIME OF OBSERVATION  
0096 02 THUNDERSTORM, SLIGHT OR MODERATE, WITH HAIL AT TIME OF OBSERVATION, THUNDERSTORM AT TIME OF OBSERVATION  
0097 02 THUNDERSTORM, HEAVY, WITHOUT HAIL BUT WITH RAIN AND/OR SNOW AT TIME OF OBSERVATION, THUNDERSTORM AT TIME OF OBSERVATION  
0098 02 THUNDERSTORM COMBINED WITH DUSTSTORM OR SANDSTORM AT TIME OF OBSERVATION, THUNDERSTORM AT TIME OF OBSERVATION  
0099 02 THUNDERSTORM, HEAVY, WITH HAIL AT TIME OF OBSERVATION, THUNDERSTORM AT TIME OF OBSERVATION  
0100 01 NO SIGNIFICANT WEATHER OBSERVED  
0101 02 CLOUDS GENERALLY DISSOLVING OR BECOMING LESS DEVELOPED DURING THE PAST HOUR  
0102 01 STATE OF SKY ON THE WHOLE UNCHANGED DURING THE PAST HOUR  
0103 01 CLOUDS GENERALLY FORMING OR DEVELOPING DURING THE PAST HOUR  
0104 02 HAZE OR SMOKE, OR DUST IN SUSPENSION IN THE AIR, VISIBILITY EQUAL TO, OR GREATER THAN 1KM  
0105 02 HAZE OR SMOKE, OR DUST IN SUSPENSION IN THE AIR, VISIBILITY LESS THAN 1KM  
0110 01 MIST  
0111 01 DIAMOND DUST  
0112 01 DISTANT LIGHTING  
0118 01 SQUALLS  
0120 01 FOG  
0121 01 PRECIPITATION  
0122 01 DRIZZLE (NOT FREEZING) OR SNOW GRAINS  
0123 01 RAIN (NOT FREEZING)  
0124 01 SNOW  
0125 01 FREEZING DRIZZLE OR FREEZING RAIN  
0126 01 THUNDERSTORM (WITH OR WITHOUT PRECIPITATION)  
0127 01 BLOWING OR DRIFTING SNOW OR SAND  
0128 02 BLOWING OR DRIFTING SNOW OR SAND, VISIBILITY EQUAL TO, OR GREATER THAN, 1KM  
0129 01 BLOWING OR DRIFTING SNOW OR SAND, VISIBILITY LESS THAN 1 KM  
0130 01 FOG  
0131 01 FOG OR ICE FOG, IN PATCHES  
0132 01 FOG OR ICE FOG, HAS BECOME THINNER DURING PAST HOUR  
0133 01 FOG OR ICE FOG, NO APPRECIABLE CHANGE DURING PAST HOUR  
0134 01 FOG OR ICE FOG, HAS BECOME THICKER DURING PAST HOUR  
0135 01 FOG, DEPOSITION RIME  
0140 01 PRECIPITATION  
0141 01 PRECIPITATION SLIGHT OR MODERATE  
0142 01 PRECIPITATION, HEAVY  
0143 01 LIQUID PRECIPITATION, SLIGHT OR MODERATE  
0144 01 LIQUID PRECIPITATION, HEAVY  
0145 01 SOLID PRECIPITATION, SLIGHT OR MODERATE  
0146 01 SOLID PRECIPITATION, HEAVY  
0147 01 FREEZING PRECIPITATION, SLIGHT OR MODERATE  
0148 01 FREEZING PRECIPITATION, HEAVY  
0150 01 DRIZZLE  
0151 01 DRIZZLE, NOT FREEZING, SLIGHT  
0152 01 DRIZZLE, NOT FREEZING, MODERATE  
0153 01 DRIZZLE, NOT FREEZING, HEAVY  
0154 01 DRIZZLE, FREEZING, SLIGHT  
0155 01 DRIZZLE, FREEZING, MODERATE  
0156 01 DRIZZLE, FREEZING, HEAVY  
0157 01 DRIZZLE AND RAIN, SLIGHT  
0158 01 DRIZZLE AND RAIN, MODERATE OR HEAVY  
0160 01 RAIN  
0161 01 RAIN, NOT FREEZING, SLIGHT  
0162 01 RAIN, NOT FREEZING, MODERATE  
0163 01 RAIN, NOT FREEZING, HEAVY  
0164 01 RAIN, FREEZING, SLIGHT  
0165 01 RAIN, FREEZING, MODERATE  
0166 01 RAIN, FREEZING, HEAVY  
0167 01 RAIN (OR DRIZZLE) AND SNOW, SLIGHT  
0168 01 RAIN (OR DRIZZLE) AND SNOW, MODERATE AND HEAVY  
0170 01 SNOW  
0171 01 SNOW, SLIGHT  
0172 01 SNOW, MODERATE  
0173 01 SNOW, HEAVY  
0174 01 ICE PELLETS, SLIGHT  
0175 01 ICE PELLETS, MODERATE  
0176 01 ICE PELLETS, HEAVY

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0180 01 SHOWER(S) OR INTERMITTENT PRECIPITATION
0181 01 RAIN SHOWER(S) OR INTERMITTENT RAIN, SLIGHT
0182 01 RAIN SHOWER(S) OR INTERMITTENT RAIN, MODERATE
0183 01 RAIN SHOWER(S) OR INTERMITTENT RAIN, HEAVY
0184 01 RAIN SHOWER(S) OR INTERMITTENT RAIN, VIOLENT
0185 01 SNOW SHOWER(S) OR INTERMITTENT SNOW, SLIGHT
0186 01 SNOW SHOWER(S) OR INTERMITTENT SNOW, MODERATE
0187 01 SNOW SHOWER(S) OR INTERMITTENT SNOW, HEAVY
0190 01 THUNDERSTORM
0191 01 THUNDERSTORM, SLIGHT OR MODERATE, WITH NO PRECIPITATION
0192 02 THUNDERSTORM, SLIGHT OR MODERATE, WITH RAIN SHOWERS AND/OR S
    NOW SHOWERS
0193 01 THUNDERSTORM, SLIGHT OR MODERATE, WITH HAIL
0194 01 THUNDERSTORM, HEAVY, WITH NO PRECIPITATION
0195 01 THUNDERSTORM, HEAVY, WITH RAIN SHOWERS AND/OR SNOW SHOWERS
0196 01 THUNDERSTORM, HEAVY, WITH HAIL
0204 01 VOLCANIC ASH SUSPENDED IN THE AIR ALOFT
0206 01 THICK DUST HAZE, VISIBILITY LESS THAN 1 KM
0207 01 BLOWING SPRAY AT THE STATION
0208 01 DRIFTING DUST (SAND)
0209 01 WALL OF DUST OR SAND IN DISTANCE (LIKE HABOOB)
0210 01 SNOW HAZE
0211 01 WHITEOUT
0213 01 LIGHTING, CLOUD TO SURFACE
0217 01 DRY THUNDERSTORM
0219 02 TORNADO CLOUD (DESTRUCTIVE AT OR WITHIN SIGHT OF THE STATION
    DURING PRECEDING HOUR OR AT THE TIME OF OBSERVATION
0220 01 DEPOSITION OF VOLCANIC ASH
0221 01 DEPOSITION OF DUST OR SAND
0222 01 DEPOSITION OF DEW
0223 01 DEPOSITION OF WET SNOW
0224 01 DEPOSITION OF SOFT RIME
0225 01 DEPOSITION OF HARD RIME
0226 01 DEPOSITION OF HOAR FROST
0227 01 DEPOSITION OF GLAZE
0228 01 DEPOSITION OF ICE CRUST (ICE SLICK)
0230 01 DUSTSTORM OR SANDSTORM WITH TEMPERATURE BELOW 0 C DEGREES
0239 02 BLOWING SNOW, IMPOSSIBLE TO DETERMINE WHETHER SNOW IS FALLIN
    G OR NOT
0241 01 FOG ON SEA
0242 01 FOG IN VALLEYS
0243 01 ARCTIC OR ANTARCTIC SEA SMOKE
0244 01 STEAM FOG (SEA, LAKE OR RIVER)
0245 01 STEAM FOG (LAND)
0246 01 FOG OVER ICE OR SNOW COVER
0247 01 DENCE FOG VISIBILITY 60-90 M
0248 01 DENCE FOG VISIBILITY 30-60 M
0249 01 DENCE FOG VISIBILITY LESS THAN 30 M
0250 01 DRIZZLE, RATE OF FALL LESS THAN 0.10 MM/H
0251 01 DRIZZLE, RATE OF FALL 0.10 - .19 MM/H
0252 01 DRIZZLE, RATE OF FALL 0.20 - .39 MM/H
0253 01 DRIZZLE, RATE OF FALL 0.40 - .79 MM/H
0254 01 DRIZZLE, RATE OF FALL 0.80 - 1.59 MM/H
0255 01 DRIZZLE, RATE OF FALL 1.60 - 3.19 MM/H
0256 01 DRIZZLE, RATE OF FALL 3.20 - 6.39 MM/H
0257 01 DRIZZLE, RATE OF FALL 6.40 MM/H OR MORE
0259 01 DRIZZLE AND SNOW
0260 01 RAIN, RATE OF FALL LESS THAN 1.0 MM/H
0261 01 RAIN, RATE OF FALL 1.0 - 1.9 MM/H
0262 01 RAIN, RATE OF FALL 2.0 - 3.9 MM/H
0263 01 RAIN, RATE OF FALL 4.0 - 7.9 MM/H
0264 01 RAIN, RATE OF FALL 8.0 - 15.9 MM/H
0265 01 RAIN, RATE OF FALL 16.0 - 31.9 MM/H
0266 01 RAIN, RATE OF FALL 32.0 - 63.9 MM/H
0267 01 RAIN, RATE OF FALL 64.0 MM/H OR MORE
0270 01 SNOW, RATE OF FALL LESS THAN 1.0 CM/H
0271 01 SNOW, RATE OF FALL 1.0 - 1.9 CM/H
0272 01 SNOW, RATE OF FALL 2.0 - 3.9 CM/H
0273 01 SNOW, RATE OF FALL 4.0 - 7.9 CM/H
0274 01 SNOW, RATE OF FALL 8.0 - 15.9 CM/H
0275 01 SNOW, RATE OF FALL 16.0 - 31.9 CM/H
0276 01 SNOW, RATE OF FALL 32.0 - 63.9 CM/H
0277 01 SNOW, RATE OF FALL 64.0 CM/H OR MORE
0278 01 SNOW OR ICE CRISTAL PRECIPITATION FROM A CLEAR SKY
0279 01 WET SNOW, FREEZING ON CONTACT
0280 01 PRECIPITATION OF RAIN (WW= 87-99)
0281 01 PRECIPITATION OF RAIN, FREEZING (WW= 80-82)
0282 01 PRECIPITATION OF RAIN AND SNOW MIXED
0283 01 PRECIPITATION OF SNOW
0284 01 PRECIPITATION OF SNOW PELLETS OR SMALL HAIL
0285 01 PRECIPITATION OF SNOW PELLETS OR SMALL HAIL, WITH RAIN
0286 02 PRECIPITATION OF SNOW PELLETS OR SMALL HAIL, WITH RAIN AND S
    NOW MIXED
0287 01 PRECIPITATION OF SNOW PELLETS OR SMALL HAIL, WITH SNOW
0288 01 PRECIPITATION OF HAIL
0289 01 PRECIPITATION OF HAIL, WITH RAIN
0290 01 PRECIPITATION OF HAIL, WITH RAIN AND SNOW MIXED
0291 01 PRECIPITATION OF HAIL, WITH SNOW
0292 01 SHOWER(S) OR THUNDERSTORM OVER SEA
0293 01 SHOWER(S) OR THUNDERSTORM OVER MOUNTAINS
0508 02 NO SIGNIFICANT PHENOMENA TO REPORT, PRESENT AND PAST WEATHER
    OMITTED
0509 02 NOT OBSERVED, NO DATA AVAILABLE, PRESENT AND PAST WEATHER OM

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0510 01 PRESENT AND PAST WEATHER MISSING, BUT EXPECTED
0511 01 MISSING VALUE
020004 0021 0000 02 CLOUD COVERING 1/2 OR LESS OF THE SKY THROUGHOUT THE APPROPRIATE PERIOD
0001 03 CLOUD COVERING MORE THAN 1/2 OF THE SKY DURING PART OF THE APPROPRIATE PERIOD AND COVERING 1/2 OR LESS DURING PART OF THE PERIOD
0002 02 CLOUD COVERING MORE THAN 1/2 OF THE SKY THROUGHOUT THE APPROPRIATE PERIOD
0003 01 SANSTORM, DUSTSTORM OR BLOWING SNOW
0004 01 FOG OR ICE OR THICK HAZE
0005 01 DRIZZLE
0006 01 RAIN
0007 01 SNOW, OR RAIN AND SNOW MIXED
0008 01 SHOWER(S)
0009 01 THUNDERSTORM(S) WITH OR WITHOUT PRECIPITATION
0010 01 NO SIGNIFICANT WEATHER OBSERVED
0011 01 VISIBILITY REDUCED
0012 01 BLOWING PHENOMENA, VISIBILITY REDUCED
0013 01 FOG
0014 01 PRECIPITATION
0015 01 DRIZZLE
0016 01 RAIN
0017 01 SNOW OR ICE PELLETS
0018 01 SHOWERS OR INTERMITTENT PRECIPITATION
0019 01 THUNDERSTORM
0031 01 MISSING VALUE
020005 0021 0000 02 CLOUD COVERING 1/2 OR LESS OF THE SKY THROUGHOUT THE APPROPRIATE PERIOD
0001 03 CLOUD COVERING MORE THAN 1/2 OF THE SKY DURING PART OF THE APPROPRIATE PERIOD AND COVERING 1/2 OR LESS DURING PART OF THE PERIOD
0002 02 CLOUD COVERING MORE THAN 1/2 OF THE SKY THROUGHOUT THE APPROPRIATE PERIOD
0003 01 SANSTORM, DUSTSTORM OR BLOWING SNOW
0004 01 FOG OR ICE OR THICK HAZE
0005 01 DRIZZLE
0006 01 RAIN
0007 01 SNOW, OR RAIN AND SNOW MIXED
0008 01 SHOWER(S)
0009 01 THUNDERSTORM(S) WITH OR WITHOUT PRECIPITATION
0010 01 NO SIGNIFICANT WEATHER OBSERVED
0011 01 VISIBILITY REDUCED
0012 01 BLOWING PHENOMENA, VISIBILITY REDUCED
0013 01 FOG
0014 01 PRECIPITATION
0015 01 DRIZZLE
0016 01 RAIN
0017 01 SNOW OR ICE PELLETS
0018 01 SHOWERS OR INTERMITTENT PRECIPITATION
0019 01 THUNDERSTORM
0031 01 MISSING VALUE
020008 0019 0000 01 Sky Clear
0001 01 Few
0002 01 Scattered
0003 01 Broken
0004 01 Overcast
0005 01 Reserved
0006 01 Scattered/Broken (Many forecasts use Scattered/Broken
0007 01 Broken/Overcast (Broken/Overcast followed by cloud type(s))
0008 01 Isolated (Used on aviation charts to describe the cloud type Cb)
0009 01 Isolated embedded (Used on aviation charts to describe the cloud type Cb)
0010 01 Occasional (Used on aviation charts to describe the cloud type Cb)
0011 01 Occasional embedded (Used on aviation charts to describe the cloud type Cb)
0012 01 Frequent (Used on aviation charts to describe the cloud type Cb)
0013 02 Dense (Used on aviation charts to describe cloud that would cause sudden changes in visibility (less than 1000m))
0014 01 Layers
0015 01 Obscured (OBSC)
0016 01 Embedded (EMBD)
0017 01 Frequent embedded
0031 01 MISSING VALUE
020009 0006 0000 01 reserved
0001 01 NSC MIL SIGNIFICANT CLOUD
0002 01 CAVOK
0003 01 SKC SKY CLEAR
0004 01 NSW NIL SIGNIFICANT WEATHER
0015 01 MISSING VALUE
020011 0011 0000 01 0 0
0001 01 1 OKTA OR LESS, BUT NOT ZERO 1/10 OR LESS, BUT NOT ZERO
0002 01 2 OKTAS 2/10 - 3/10
0003 01 3 OKTAS 4/10
0004 01 4 OKTAS 5/10
0005 01 5 OKTAS 6/10
0006 01 6 OKTAS 7/10 - 8/10
0007 01 7 OKTAS OR MORE, BUT NOT 8 OKTAS 9/10 OR MORE, BUT NOT 10/10
0008 01 8 OKTAS 10/10
0009 01 SKY OBSCURED BY FOG AND OR OTHER METEOROLOGICAL PHENOMENA
0015 02 CLOUD COVER IS INDISCERNIBLE FOR REASONS OTHER THAN FOG OR OTHER METEOROLOGICAL PHENOMENA, OR OBSERVATION IS NOT MADE
020012 0045 0000 01 CIRRUS (CI).....CI
0001 01 CIRROCUMULUS (CC).....CC

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0002 01 CIRROSTRATUS (CS).....CS
0003 01 ALTOCUMULUS (AC).....AC
0004 01 ALTOSTRATUS (AS).....AS
0005 01 NIMBOSTRATUS (NS).....NS
0006 01 STRATOCUMULUS (SC).....SC
0007 01 STRATUS (ST).....ST
0008 01 CUMULUS (CU).....CU
0009 01 CUMULONIMBUS (CB).....CB
0010 01 NO CH CLOUDS
0011 02 CIRRUS FIBRATUS, SOMETIMES UNCINUS, NOT PROGRESSIVELY INADIN
      G THE SKY
0012 04 CIRRUS SPISSATUS, IN PATCHES OR ENTANGLED SHEAVES, WHICH USU
      ALLY DO NOT INCREASE AND SOMETIMES SEEM TO BE THE REMAINS OF
      THE UPPER PART OF A CUMULONIMBUS; OR CIRRUS CASTELLANUS OR
      FLOCCUS
0013 01 CIRRUS SPISSATUS CUMULONIMBOGENITUS
0014 02 CIRRUS UNCINUS OR FIBRATUS, OR BOTH, PROGRESSIVELY INVADING T
      HE SKY ; THEY GENERALLY THICKEN AS A WHOLE
0015 04 CIRRUS (OFTEN IN BANDS) AND CIRROSTRATUS, OR CIRROSTRATUS AL
      ONE, PROGRESSIVELY INVADING THE SKY; THEY GENERALLY THICKEN
      ASA WHOLE, BUT THE CONTINUOUS VEIL DOES NOT REACH 45 DEGREES
      ABOVE THE HORIZON
0016 05 CIRRUS (OFTEN IN BANDS) AND CIRROSTRATUS, OR CIRROSTRATUS AL
      ONE, PROGRESSIVELY INVADING THE SKY; THEY GENERALLY THICKEN
      ASA WHOLE, BUT THE CONTINUOUS VEIL EXTENDS MORE THAN 45 DEGR
      REES ABOVE THE HORIZON, WITHOUT THE SKY BEING TOTALLY COVERE
      D
0017 01 CIRROSTRATUS COVERING THE WHOLE SKY
0018 02 CIRROSTRATUS NOT PROGRESSIVELY INVADING THE SKY AND NOT ENTI
      RELY COVERING IT
0019 02 CIRROCUMULUS ALONE, OR CIRROCUMULUS PREDOMINANT AMONG THE CH
      CLOUDS
0020 01 NO CM CLOUDS
0021 01 ALTOSTRATUS TRANSLUCIDUS
0022 01 ALTOSTRATUS OPACUS OR NIMBOSTRATUS
0023 01 ALTOCUMULUS TRANSLUCIDUS AT A SINGLE LEVEL
0024 02 PATCHES (OFTEN LENTICULARIS) OF ALTOCUMULUS TRANSLUCIDUS, CO
      NTINUALLY CHANGING AND OCCURRING AT ONE OR MORE LEVELS
0025 04 ALTOCUMULUS TRANSLUCIDUS IN BANDS, OR ONE OR MORE LAYERS OF
      ALTOCUMULUS TRANSLUCIDUS OR OPACUS, PROGRESSIVELY INVADING T
      HE SKY; THESE ALTOCUMULUS CLOUDS GENERALLY THICKEN AS A WHOL
      E
0026 01 ALTOCUMULUS CUMULOGENITUS (OR CUMULONIMBOGENITUS)
0027 04 ALTOCUMULUS TRANSLUCIDUS OR OPACUS IN TWO OR MORE LAYERS, OR
      ALTOCUMULUS OPACUS IN A SINGLE LAYER, NOT PROGRESSIVELY INV
      ADING THE SKY, OR ALTOCUMULUS WITH ALTOSTRATUS OR NIMBOSTRAT
      US
0028 01 ALTOCUMULUS CASTELLANUS OR FLOCUS
0029 01 ALTOCUMULUS OF CHAOTIC SKY, GENERALLY AT SEVERAL LEVELS
0030 01 NO CL CLOUDS
0031 02 CUMULUS HUMILIS OR CUMULUS FRACTUS OTHER THAN OF BAD WEATHER
      , OR BOTH
0032 03 CUMULUS MEDIOCRIS OR CONGESTUS, WITH OR WITHOUT CUMULUS OF S
      PECIES FRACTUS OR HUMILIS OR STRATOCUMULUS, ALL HAVING THEIR
      BASES AT THE SAME LEVEL
0033 02 CUMULONIMBUS CALVUS, WITH OR WITHOUT CUMULUS, STRATOCUMULUS
      OR STRATUS
0034 01 STRATOCUMULUS CUMULOGENITUS
0035 01 STRATOCUMULUS OTHER THAN STRATOCUMULUS CUMULOGENITUS
0036 02 STRATUS NEBULOSUS OR STRATUS FRACTUS OTHER THAN OF BAD WEATH
      ER, OR BOTH
0037 02 STRATUS FRACTUS OR CUMULUS FRACTUS OF BAD WEATHER, OR BOTH
      (PANNUS), USUALLY BELOW ALTOSTRATUS OR NIMBOSTRATUS
0038 02 CUMULUS AND STRATOCUMULUS OTHER THAN STRATOCUMULUS CUMULOGEN
      ITUS, WITH BASES AT DIFFERENT LEVELS
0039 03 CUMULONIMBUS CAPILLATUS (OFTEN WITH AN ANVIL), WITH OR WITHO
      UT CUMULONIMBUS CALVUS, CUMULUS, STRATOCUMULUS, STRATUS OR P
      ANNUS
0059 02 CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTO
      RM, OR OTHER ANALOGOUS PHENOMENA
0060 03 CH CLOUDS INVISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDS
      TORM, OR OTHER SIMILAR PHENOMENA, OR BECAUSE OF A CONTINUOUS
      LAYER OF LOWER CLOUDS
0061 03 CM CLOUDS INVISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDS
      TORM, OR OTHER SIMILAR PHENOMENA, OR BECAUSE OF A CONTINUOUS
      LAYER OF LOWER CLOUDS
0062 02 CL CLOUDS INVISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDS
      TORM, OR OTHER SIMILAR PHENOMENA
0063 01 MISSING VALUE
020017 0011 0000 01 ISOLATED CLOUD OR FRAGMENTS OF CLOUD
      0001 01 CONTINUOUS CLOUD
      0002 01 BROKEN CLOUD - SMALL BREAKS, FLAT TOPS
      0003 01 BROKEN CLOUD - LARGE BREAKS, FLAT TOPS
      0004 01 CONTINUOUS CLOUD
      0005 01 BROKEN CLOUD - SMALL BREAKS, UNDULATED TOPS
      0006 01 BROKEN CLOUD - LARGE BREAKS, UNDULATED TOPS
      0007 02 CONTINUOUS OR ALMOST CONTINUOUS WAVES WITH TOWERING CLOUDS A
      BOVE THE TOP OF THE LAYER
      0008 02 GROUPS OF WAVES WITH TOWERING CLOUDS ABOVE THE TOP OF THE LA
      YER
      0009 01 TWO OR MORE LAYERS AT DIFFERENT LEVELS
      0015 01 MISSING VALUE
020018 0004 0000 01 INCREASING (U)

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0001 01 DECREASING (D)
0002 01 NO DISTINCT CHANGE (N)
0003 01 MISSING VALUE
020021 0024 0001 01 Precipitation-unknown type
0002 01 Liquid precipitation not freezing
0003 01 Liquid freezing precipitation
0004 01 Drizzle
0005 01 Rain
0006 01 Solid precipitation
0007 01 Snow
0008 01 Snow grains
0009 01 Snow pellets
0010 01 Ice pellets
0011 01 Ice crystals
0012 01 Diamond dust
0013 01 Small hail
0014 01 Hail
0015 01 Glaze
0016 01 Rime
0017 01 Soft rime
0018 01 Hard rime
0019 01 Clear ice
0020 01 Wet snow
0021 01 Hoar frost
0022 01 Dew
0023 01 White dew
0030 01 All 30 missing value
020022 0007 0000 01 No precipitation
0001 01 Continuous
0002 01 Intermittent
0003 01 Shower
0004 01 Not reaching ground
0005 01 Deposition
0015 01 MISSING VALUE
020023 0012 0001 01 Dust/sand whirl
0002 01 Squalls
0003 01 Sand storm
0004 01 Dust storm
0005 01 Lightning - cloud to surface
0006 01 Lightning - cloud to cloud
0007 01 Lightning - distant
0008 01 Thunderstorm
0009 01 Funnel Cloud not touching surface
0010 01 Funnel cloud touching surface
0011 01 Spray
0012 01 Water-spout
020024 0007 0000 01 No phenomena
0001 01 Light
0002 01 Moderate
0003 01 Heavy
0004 01 Violent
0005 01 Severe (VAL)
0007 01 Missing value
020025 0011 0001 01 Fog
0002 01 Ice fog
0003 01 Steam fog
0007 01 Mist
0008 01 Haze
0009 01 Smoke
0010 01 Volcanic ash
0011 01 Dust
0012 01 Sand
0013 01 Snow
0021 01 All 21 missing value
020026 0014 0000 01 No change
0001 01 Shallow
0002 01 Patches
0003 01 Partial
0004 01 Freezing
0005 01 Low drifting
0006 01 Blowing
0007 01 Increasing
0008 01 Decreasing
0009 01 In suspension in the air
0010 01 Wall
0011 01 Dense
0012 01 Whiteout
0015 01 Missing value
020027 0007 0001 01 At time of observation
0002 01 In past hour
0003 01 In time period for past weather W1W2
0004 01 In time period specified
0006 01 Below station level
0007 01 At the station
0008 01 In the vicinity
0009 01 All 9 missing value
020029 0004 0000 01 No rain
0001 01 rain
0002 01 Reserved
0003 01 Missing value
020032 0006 0000 01 ICE NOT BUILDING UP
0001 01 ICE BUILDING UP SLOWLY
0002 01 ICE BUILDING UP QUICKLY
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0003 01 ICE MELTING OR BREAKING UP SLOWLY
0004 01 ICE MELTING OR BREAKING UP RAPIDLY
0007 01 MISSING VALUE
020033 0004 0001 01 ICING FROM OCEAN SPRAY
0002 01 ICING FROM FOG
0003 01 ICING FROM RAIN
0004 01 MISSING VALUE
020034 0012 0000 01 NO SEA ICE IN SIGHT
0001 02 SHIP IN OPEN LEAD MORE THAN 1.0 NAUTICAL MILE WIDE, OR SHIP
IN FAST ICE WITH BOUNDARY BEYOND LIMIT OF VISIBILITY
0002 04 SEA ICE PRESENT IN CONCENTRATION LESS THAN 3/10 (3/8), OPEN W
ATER OR VERY OPEN PACK ICE, SEA ICE CONCENTRATION IS UNIFORM
IN THE OBSERVATION AREA, SHIP IN ICE OR WITHIN 0.5 NAUTICAL
MILE OF ICE EDGE
0003 03 4/10 TO 6/10 (3/8 TO LESS THAN 6/8), OPEN PACK ICE, SEA ICE
CONCENTRATION IS UNIFORM IN THE OBSERVATION AREA, SHIP IN ICE
OR WITHIN 0.5 NAUTICAL MILE OF ICE EDGE
0004 03 7/10 TO 8/10 (6/8 TO LESS THAN 7/8), CLOSE PACK ICE, SEA ICE
CONCENTRATION IS UNIFORM IN THE OBSERVATION AREA, SHIP IN IC
E OR WITHIN 0.5 NAUTICAL MILE OF ICE EDGE
0005 04 9/10 OR MORE, BUT NOT 10/10 (7/8 TO LESS THAN 8/8), VERY CLO
SE PACK ICE, SEA ICE CONCENTRATION IS UNIFORM IN THE OBSERVAT
ION AREA, SHIP IN ICE OR WITHIN 0.5 NAUTICAL MILE OF ICE EDG
E
0006 03 STRIPS AND PATCHES OF PACK ICE WITH OPEN WATER BETWEEN, SEA
ICE CONCENTRATION IS NOT UNIFORM IN THE OBSERVATION AREA, SH
IP IN ICE OR WITHIN 0.5 NAUTICAL MILE OF ICE EDGE
0007 04 STRIPS AND PATCHES OF CLOSE OR VERY CLOSE PACK ICE WITH AREA
S OF LESSER CONCENTRATION BETWEEN, SEA ICE CONCENTRATION IS N
OT UNIFORM IN THE OBSERVATION AREA, SHIP IN ICE OR WITHIN 0.
5 NAUTICAL MILE OF ICE EDGE
0008 04 FAST ICE WITH OPEN WATER, VERY OPEN OR OPEN PACK ICE TO SEAWA
RD OF THE ICE BOUNDARY, SEA ICE CONCENTRATION IS NOT UNIFORM
IN THE OBSERVATION AREA, SHIP IN ICE OR WITHIN 0.5 NAUTICAL
MILE OF ICE EDGE
0009 04 FAST ICE CLOSE OR VERY CLOSE PACK ICE TO SEAWARD OF THE ICE
BOUNDARY, SEA ICE CONCENTRATION IS NOT UNIFORM IN THE OBSERVA
TION AREA, SHIP IN ICE OR WITHIN 0.5 NAUTICAL MILE OF ICE ED
GE
0014 03 UNABLE TO REPORT, BECAUSE OF DARKNESS, LACK OF VISIBILITY, O
R BECAUSE SHIP IS MORE THAN 0.5 NAUTICAL MILE AWAY FROM ICE
EDGE
0015 01 MISSING VALUE
020035 0012 0000 01 NO ICE OF LAND ORIGIN
0001 01 1-5 ICEBERGS, NO GROWLERS OR BERGY BITS
0002 01 6-10 ICEBERGS, NO GROWLERS OR BERGY BITS
0003 01 11-20 ICEBERGS, NO GROWLERS OR BERGY BITS
0004 01 UP TO AND INCLUDING 10 GROWLERS AND BERGY BITS - NO ICEBERGS
0005 01 MORE THAN 10 GROWLERS AND BERGY BITS - NO ICEBERGS
0006 01 1-5 ICEBERGS, WITH GROWLERS AND BERGY BITS
0007 01 6-10 ICEBERGS, WITH GROWLERS AND BERGY BITS
0008 01 11-20 ICEBERGS, WITH GROWLERS AND BERGY BITS
0009 02 MORE THAN 20 ICEBERGS, WITH GROWLERS AND BERGY BITS - A MAJOR
HAZARD TO NAVIGATION
0014 02 UNABLE TO REPORT, BECAUSE OF DARKNESS, LACK OF VISIBILITY OR
BECAUSE ONLY SEA ICE IS VISIBLE
0015 01 MISSING VALUE
020036 0012 0000 01 SHIP IN OPEN WATER WITH FLOATING ICE IN SIGHT
0001 01 SHIP IN EASILY PENETRABLE ICE; CONDITIONS IMPROVING
0002 01 SHIP IN EASILY PENETRABLE ICE; CONDITIONS NOT CHANGING
0003 01 SHIP IN EASILY PENETRABLE ICE; CONDITIONS WORSENING
0004 01 SHIP IN ICE DIFFICULT TO PENETRATE; CONDITIONS IMPROVING
0005 01 SHIP IN ICE DIFFICULT TO PENETRATE; CONDITIONS NOT CHANGING
0006 02 SHIP IN ICE DIFFICULT TO PENETRATE AND CONDITIONS WORSENING.
ICE FORMING AND FLOES FREEZING TOGETHAR
0007 02 SHIP IN ICE DIFFICULT TO PENETRATE AND CONDITIONS WORSENING.
ICE UNDER SLIGHT PRESSURE
0008 02 SHIP IN ICE DIFFICULT TO PENETRATE AND CONDITIONS WORSENING.
ICE UNDER MODERATE OR SEVERE PRESSURE
0009 01 SHIP IN ICE DIFFICULT TO PENETRATE AND CONDITIONS WORSENING. SHIP BESET.
0030 01 UNABLE TO REPORT, BECAUSE OF DARKNESS OR LACK OF VISIBILITY
0031 01 MISSING VALUE
020037 0012 0000 01 NEW ICE ONLY (FRAZIL ICE, GREASE ICE, SLUSH, SHUGA)
0001 01 NILAS OR ICE RIND, LESS THAN 10 CM THICK
0002 01 YOUNG ICE (GREY ICE, GREY-WHITE ICE)
0003 01 Predominantly new and/or young ice with some first-year ice
0004 01 Predominantly thin first-year ice with some new and/or young ice
0005 01 All thin first-year ice (30-70 cm thick)
0006 02 Predominantly medium first-year ice
(70-120 cm thick) and thick first-year ice (>120 cm
0007 01 All medium and thick first-year ice
0008 02 Predominantly medium and thick first-year ice with some
old ice (usually more than 2 metres thick)
0009 01 Predominantly old ice
0030 03 Unable to report, because of darkness, lack of visibility or because
only ice of land origin is visible or because ship is more than 0.5
nautical mile away from ice edge
0031 01 Missing value
020040 0009 0000 01 Drift snow ended before the hour of observation
0001 01 Intensity diminishing
0002 01 No change
0003 01 Intensity increasing
0004 01 Continues, apart from interruption lasting less than 30 minutes

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0005 01 General drift snow has become drift snow near the ground
0006 01 Drift snow near the ground has become general drift snow
0007 01 Drift snow has started again after an interruption of more than 30 minutes
0015 01 Missing value
020041 0011 0000 01 NO ICING
0001 01 LIGHT ICING
0002 01 LIGHT ICING IN CLOUD
0003 01 LIGHT ICING IN PRECIPITATION
0004 01 MODERATE ICING
0005 01 MODERATE ICING IN CLOUD
0006 01 MODERATE ICING IN PRECIPITATION
0007 01 SEVERE ICING
0008 01 SEVERE ICING IN CLOUD
0009 01 SEVERE ICING IN PRECIPITATION
0015 01 MISSING VALUE
020042 0004 0000 01 No icing
0001 01 Icing present
0002 01 Reserved
0003 01 Missing value
020045 0004 0000 01 No SLD conditions present
0001 01 SLD conditions present
0002 01 Reserved
0003 01 Missing value
020062 0021 0000 03 SURFACE OR GROUND DRY (WITHOUT CRACKS AND NO APPRECIABLE AMOUNT OF DUST OR LOOSE SAND), WITHOUT SNOW OR MEASURABLE ICE COVER
0001 02 SURFACE OF GROUND MOIST, WITHOUT SNOW OR MEASURABLE ICE COVER
0002 02 SURFACE OF GROUND WET (STANDING WATER IN SMALL OR LARGE POOLS ON SURFACE, WITHOUT SNOW OR MEASURABLE ICE COVER)
0003 01 FLOODED, WITHOUT SNOW OR MEASURABLE ICE COVER
0004 02 SURFACE OF GROUND FROZEN, WITHOUT SNOW OR MEASURABLE ICE COVER
0005 01 GLAZE ON GROUND, WITHOUT SNOW OR MEASURABLE ICE COVER
0006 02 LOOSE DRY DUST OR SAND NOT COVERING GROUND COMPLETELY, WITHOUT SNOW OR MEASURABLE ICE COVER
0007 02 THIN COVER OF LOOSE DRY DUST OR SAND COVERING GROUND COMPLETELY, WITHOUT SNOW OR MEASURABLE ICE COVER
0008 02 MODERATE OR THICK COVER OF LOOSE DRY DUST OR SAND COVERING GROUND COMPLETELY, WITHOUT SNOW OR MEASURABLE ICE COVER
0009 02 EXTREMELY DRY WITH CRACKS, WITHOUT SNOW OR MEASURABLE ICE COVER
0010 02 GROUND PREDOMINANTLY COVERED BY ICE, WITH SNOW OR MEASURABLE ICE COVER
0011 02 COMPACT OR WET SNOW (WITH OR WITHOUT ICE) COVERING LESS THAN ONE-HALF OF THE GROUND, WITH SNOW OR MEASURABLE ICE COVER
0012 03 COMPACT OR WET SNOW (WITH OR WITHOUT ICE) COVERING AT LEAST ONE-HALF OF THE GROUND BUT GROUND NOT COMPLETELY COVERED, WITH SNOW OR MEASURABLE ICE COVER
0013 02 EVEN LAYER OF COMPACT OR WET SNOW COVERING GROUND COMPLETELY, WITH SNOW OR MEASURABLE ICE COVER
0014 02 UNEVEN LAYER OF COMPACT OR WET SNOW COVERING GROUND COMPLETELY, WITH SNOW OR MEASURABLE ICE COVER
0015 02 LOOSE DRY SNOW COVERING LESS THAN ONE HALF OF THE GROUND, WITH SNOW OR MEASURABLE ICE COVER
0016 02 LOOSE DRY SNOW COVERING LESS THAN ONE-HALF OF THE GROUND (BUT NOT COMPLETELY), WITH SNOW OR MEASURABLE ICE COVER
0017 02 EVEN LAYER OF LOOSE DRY SNOW COVERING GROUND COMPLETELY, WITH SNOW OR MEASURABLE ICE COVER
0018 02 UNEVEN LAYER OF LOOSE DRY SNOW COVERING GROUND COMPLETELY, WITH SNOW OR MEASURABLE ICE COVER
0019 02 SNOW COVERING GROUND COMPLETELY; DEEP DRIFTS, WITH SNOW OR MEASURABLE ICE COVER
0031 01 MISSING VALUE
020050 0010 0000 01 Reserved
0001 01 1st low cloud
0002 01 2nd low cloud
0003 01 3rd low cloud
0004 01 1st medium cloud
0005 01 2nd medium cloud
0006 01 3rd medium cloud
0007 01 1st high cloud
0008 01 2nd high cloud
0255 01 Missing value
020056 0005 0000 01 Unknown
0001 01 Water
0002 01 Ice
0003 01 Mixed
0007 01 MISSING VALUE
020062 0021 0000 02 Surface of ground dry (without cracks and no appreciable amount of dust or loose sand)
0001 01 Surface of ground moist
0002 02 Surface of ground wet (standing water in small or large pools on surface)
0003 01 Flooded without snow
0004 01 Surface of ground frozen measurable ice
0005 01 Glaze on ground cover
0006 01 Loose dry dust or sand not covering ground completely
0007 01 Thin cover of loose dry dust or sand covering ground completely
0008 02 Moderate or thick cover of loose dry dust or sand covering ground completely
0009 01 Extremely dry with cracks
0010 01 Ground predominantly covered by ice

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0011 02 Compact or wet snow (with or without ice) covering less than
one-half of the ground
0012 02 Compact or wet snow (with or without ice) covering at least
one-half of the ground but ground not completely covered
0013 01 Even layer of compact or wet snow covering ground completely
0014 02 Uneven layer of compact or wet snow covering ground
with snow or completely measurable ice
0015 01 Loose dry snow covering less than one-half of the ground cover
0016 02 Loose dry snow covering at least one-half of the
ground (but not completely)
0017 01 Even layer of loose dry snow covering ground completely
0018 01 Uneven layer of loose dry snow covering ground completely
0019 01 Snow covering ground completely; deep drifts
0031 01 MISSING VALUE
020063 0001 0000 01 TO BE DEVELOPED
020071 0011 0000 01 No assessment          No assessment
0001 01 Less than 50 km          Less than 1 per second
0002 01 Between 50 and 200 km      Less than 1 per second
0003 01 More than 200 km          Less than 1 per second
0004 01 Less than 50 km          1 or more per second
0005 01 Between 50 and 200 km      1 or more per second
0006 01 More than 200 km          1 or more per second
0007 01 Less than 50 km          Rate so rapid number cannot be counted
0008 01 Between 50 and 200 km      Rate so rapid number cannot be counted
0009 01 More than 200 km          Rate so rapid number cannot be counted
0015 01 MISSING VALUE
020086 0008 0000 01 Clear and dry
0001 01 Damp
0005 01 Wet snow
0006 01 Slush
0007 01 Ice
0008 01 Compacted or rolled snow
0009 01 Frozen ruts or ridges
0015 01 Missing value
020090 0007 0000 01 RESERVED
0001 01 NACREOUS CLOUDS
0002 01 NOCTILUCENT CLOUDS
0003 01 CLOUDS FROM WATERFALLS
0004 01 CLOUDS FROM FIRES
0005 01 CLOUDS FROM VULCANIC ERUPTIONS
0015 01 MISSING VALUE
020151 0003 0000 01 FIRST YEAR ICE
0001 01 MULTI YEAR ICE
0007 01 MISSING
020252 0003 0000 01 NO EDGE
0001 01 EDGE PRESENT
0007 01 MISSING
020253 0007 0000 01 LAND
0001 01 VEGETATION COVERED LAND
0002 01 RESERVED
0003 01 ICE
0004 01 POSSIBLE ICE
0005 01 OCEAN
0006 01 COAST
0007 01 MISSING
021066 0011 0001 01 PROCESSING EQUIPMENT NOT WORKING
0002 01 EQUIPMENT FAILED
0003 01 PRF CODE CHANGED DURING IMAGE GENERATION
0004 01 SAMPLING WINDOW CHANGED DURING IMAGE GENERATION
0005 01 GAIN CHANGED DURING IMAGE GENERATION
0006 01 CHIRP REPLICATION EXCEEDS SPECIFIC VALUE
0007 02 INPUT DATA MEAN AND STANDARD DEVIATION OF IN-PHASE AND
QUADRATURE OUT OF RANGE
0008 01 DOPPLER CENTROID CONFIDENCE > MMCC VALUE
0009 01 DOPPLER CENTROID ABSOLUTE VALUE > PRF/2
0010 01 DOPPLER AMBIGUITY CONFIDENCE < MMCC VALUE
0011 01 OUTPUT DATA MEAN AND STANDARD DEVIATION =< MMCC VALUE
021067 0012 0001 01 NO FOREBEAM CALCULATION
0002 01 NO MIDBEAM CALCULATION
0003 01 NO AFTBEAM CALCULATION
0004 01 FOREBEAM ARCING DETECTED
0005 01 MID ARCING DETECTED
0006 01 AFTBEAM ARCING DETECTED
0007 01 ANY BEAM NOISE CONTENT ABOVE OR EQUAL TO THRESHOLD
0008 01 LAND (ANY LAND IN CELL FOOTPRINT)
0009 01 AUTONOMOUS AMBIGUITY REMOVAL NOT USED
0010 01 METEOROLOGICAL BACKGROUND NOT USED
0011 01 MINIMUM RESIDUAL EXCEEDED THRESHOLD
0012 01 FRAME CHECKSUM ERROR DETECTED
021068 0007 0001 01 STANDARD DEVIATION OF WIND SPEED OUTSIDE MMCC LIMIT
0002 01 STANDARD DEVIATION OF SIGNIFICANT WAVE HEIGHT OUTSIDE MMCC LIMIT
0003 01 STANDARD DEVIATION OF ALTITUDE OUTSIDE MMCC LIMIT
0004 01 MEAN PEAKINESS OUTSIDE MMCC LIMIT
0005 01 FRAME CHECKSUM ERROR DETECTED
0006 01 HEIGHT-TIME LOOP TIME CONSTANT CORRECTION NOT PERFORMED
0007 01 NOT ENOUGH MEASUREMENTS ( N< 10)
021069 0009 0001 01 12.0 MICROMETERS CHANNEL PRESENT IN SOURCE DATA
0002 01 11.0 MICROMETERS CHANNEL PRESENT IN SOURCE DATA
0003 01 3.7 MICROMETERS CHANNEL PRESENT IN SOURCE DATA
0004 01 1.6 MICROMETERS CHANNEL PRESENT IN SOURCE DATA
0005 02 CLOUD IDENTIFICATION USED 1.6 MICROMETERS
HISTOGRAM REFLECTANCE CLOUD TEST
0006 02 1.6 MICROMETERS HISTOGRAM REFLECTANCE CLOUD

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TEST USED DYNAMIC TRESHOLD
0007 01 SUN GLINT DETECTED BY 1.6 MICROMETERS REFLECTANCE CLOUD TEST
0008 01 3.7 MICROMETERS USED IN SEA-SURFACE TEMPERATURE RETRIEVAL
0009 02 SEA-SURFACE TEMPERATURE DERIVATION USED DAYTIME DATA
      (NIGHT-TIME IF ZERO)
021070 0024 0001 01 Cell 1:nadir-only view SST used 3.7 micron channel
            0002 01 Cell 2:nadir-only view SST used 3.7 micron channel Cell numbering
            0003 01 Cell 3:nadir-only view SST used 3.7 micron channel
            0004 01 Cell 4:nadir-only view SST used 3.7 micron channel NW NE
            0005 01 Cell 5:nadir-only view SST used 3.7 micron channel 7 8 9
            0006 01 Cell 6:nadir-only view SST used 3.7 micron channel 4 5 6
            0007 01 Cell 7:nadir-only view SST used 3.7 micron channel 1 2 3
            0008 01 Cell 8:nadir-only view SST used 3.7 micron channel SW SE
            0009 01 Cell 9:nadir-only view SST used 3.7 micron channel
            0010 01 -18 Dual view SST retrieval used 3.7 micron channel (one bit per 10-arcmin cell)
            0011 01 Cell 1:nadir-only view SST used 3.7 micron channel
            0012 01 Cell 2:nadir-only view SST used 3.7 micron channel Cell numbering
            0013 01 Cell 3:nadir-only view SST used 3.7 micron channel
            0014 01 Cell 4:nadir-only view SST used 3.7 micron channel NW NE
            0015 01 Cell 5:nadir-only view SST used 3.7 micron channel 7 8 9
            0016 01 Cell 6:nadir-only view SST used 3.7 micron channel 4 5 6
            0017 01 Cell 7:nadir-only view SST used 3.7 micron channel 1 2 3
            0018 01 Cell 8:nadir-only view SST used 3.7 micron channel SW SE
            0019 01 Nadir view contains day-time data (night if zero)
            0020 01 Forward view contains day-time data (night if zero)
            0021 02 Record contains contributions from instrument scans acquired when ERS platform not in
            yaw-steering mode
            0022 02 Record contains contributions from instrument scans for which Product Confidence Data
            show quality is poor or unknown
            0023 01 Missing value
021072 0003 0001 01 HEIGHT ERROR CORRECTION APPLIED INSTEAD OF OPEN LOOP CALIBRATION
            0002 01 MICROWAVE SOUNDER USED FOR TROPOSPHERE CORRECTION
            0003 01 AGC OUTPUT CORRECTION APPLIED INSTED OF OPEN LOOP CALIBRATION
021073 0008 0001 01 BLANK DATA RECORD
            0002 01 TEST
            0003 01 CALIBRATION (CLOSED LOOP)
            0004 01 BITE
            0005 01 ACQUISITION ON ICE
            0006 01 ACQUISITION ON OCEAN
            0007 01 TRACKING ON ICE
            0008 01 TRACKING ON OCEAN
021076 0004 0000 01 LINEAR
            0001 01 LOGARITHMIC (BASE E)
            0002 01 LOGARITHMIC (BASE 10)
            0007 01 MISSING VALUE
021109 0008 0001 01 NOT ENOUGH GOOD SIGMA-0 AVAILABLE FOR WIND RETRIEVAL
            0002 01 POOR AZIMUTH DIVERSITY AMONG SIGMA0- FOR WIND RETRIEVAL
            0008 01 SOME PORTION OF WIND VECTOR CELL IS OVER LAND
            0009 01 SOME PORTION OF WIND VECTOR CELL IS OVER ICE
            0010 01 WIND RETRIEVAL NOT PERFORMED FOR WIND VECTOR CELL
            0011 01 REPORTED WIND SPEED IS GREATER THAN 30 M/S
            0012 01 REPORTED WIND SPEED IS LESS THAN OR EQUAL TO 3 M/S
            0017 01 MISSING VALUE
021115 0011 0001 01 SIGMA-0 MEASUREMENT IS NOT USABLE
            0002 01 SIGNAL TO NOISE RATIO IS LOW
            0003 01 SIGMA-0 IS NEGATIVE
            0004 01 SIGMA-0 IS OUTSIDE OF ACCEPTABLE RANGE
            0005 01 SCATTEROMETER PULSE QUALITY IS NOT ACCEPTABLE
            0006 01 SIGMA-0 CELL LOCATION ALGORITHM DOES NOT CONVERGE
            0007 01 FREQUENCY SHIFT LIES BEYOND THE RANGE OF THE X FACTOR TABLE
            0008 01 SPACECRAFT TEMPERATURE IS BEYOND CALIBRATION COEFFICIENT RANGE
            0009 01 NO APPLICABLE ATTITUDE RECORDS WERE FOUND FOR THIS SIGMA-0
            0010 01 INTERPOLATED EPHEMERIS DATA ARE NOT ACCEPTABLE FOR THIS SIGMA-0
            0017 01 MISSING VALUE
021116 0016 0001 01 Calibration/measurement pulse flag (1)
            0002 01 Calibration/measurement pulse flag (2)
            0003 01 Outer antenna beam
            0004 01 Sigma-0 cell is aft of spacecraft
            0005 01 Current mode (1)
            0006 01 Current mode (2)
            0007 01 Effective gate width - slice resolution (1)
            0008 01 Effective gate width - slice resolution (2)
            0009 01 Effective gate width - slice resolution (3)
            0010 01 Low resolution mode - whole pulse data
            0011 01 Scatterometer electronic subsystem B
            0012 01 Alternate spin rate - 19.8 rpm
            0013 01 Receiver protection on
            0014 01 Slices per composite flag (1)
            0015 01 Slices per composite flag (2)
            0016 01 Slices per composite flag (3)
021119 0014 0000 01 RESERVED
            0001 01 SASS
            0002 01 SASS2
            0003 01 NSCAT0
            0004 01 NSCAT1
            0005 01 NSCAT2
            0006 01 QSCAT0
            0007 01 QSCAT1
            0031 01 CMOD1
            0032 01 CMOD2
            0033 01 CMOD3
            0034 01 CMOD4
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0035 01 CMOD5
0064 01 MISSING VALUE
021196 0012 0001 01 PROCESSING EQUIPMENT NOT WORKING
0002 01 EQUIPMENT FAILED
0003 01 PRF CODE CHANGED DURING IMAGE GENERATION
0004 01 SAMPLING WINDOW CHANGED DURING IMAGE GENERATION
0005 01 GAIN CHANGED DURING IMAGE GENERATION
0006 01 CHIRP REPLICAS EXCEEDS SPECIFIED VALUE
0007 01 INPUT DATA MEAN AND STANDARD DEVIATION OF I AND Q OUT OF RANGE
0008 01 DOPPLER CENTROID CONFIDENCE > mmcc VALUE
0009 01 DOPPLER CENTROID ABSOLUTE VVALUE > PRF/2
0010 01 DOPPLER AMBIGUITY CONFIDENCE < MMCC VALUE
0011 01 OUTPUT DATA MEAN AND STANDARD DEVIATION <= MMCC VALUE
0012 01 MISSING VALUE
021199 0007 0001 01 3.7 MICRO CHANNEL USED IN ASST DERIVATION
0002 01 ASST DERIVATION USED DATETIME DATA
0003 02 COMPARISON OF ASST AGAINST PREVIOUS
EQUIVALENT PASS PERFORMED
0004 02 COMPARISON OF ASST AGAINST WEEKLY AVERAGE
OF ASST PERFORMED
0005 01
0006 02 COMPARISON OF RATE OF CHANGE OF ASST AGAINST
STATIC THRESHOLD PERFORMED
0007 01 MISSING VALUE
022056 0004 0000 01 Upwards profile
0001 01 Downwards profile
0002 01 Horizontal
0003 01 Missing value
022060 0004 0000 01 Drogue is detached
0001 01 Drogue is attached
0002 01 Drogue status unknown
0007 01 MISSING VALUE
022061 0011 0000 01 CALM (GLASSY) HEIGHT 0 M
0001 01 CALM (RIPPLED) HEIGHT 0 - 0.1 M
0002 01 SMOOTH (WAVELETS) HEIGHT 0.1 - 0.5 M
0003 01 SLIGHT HEIGHT 0.5 - 1.5 M
0004 01 MODERATE HEIGHT 1.25 - 2.5 M
0005 01 ROUGH HEIGHT 2.5 - 4 M
0006 01 VERY ROUGH HEIGHT 4 - 6 M
0007 01 HIGH HEIGHT 6 - 9 M
0008 01 VERY HIGH HEIGHT 9 - 14 M
0009 01 PHENOMANAL HEIGHT OVER 14 M
0015 01 MISSING VALUE
022067 0001 0000 01 See common Code Table C3
022068 0001 0000 01 See common Code Table C4
022120 0013 0000 01 GOOD DATA
0001 01 MAXIMUM (HIGH) WATER LEVEL LIMIT EXCEEDED
0002 01 MINIMUM (LOW) WATER LEVEL LIMIT EXCEEDED
0003 01 RATE OF CHANGE LIMIT FOR WATER LEVEL EXCEEDED
0004 01 FLAT LIMIT FOR WATER LEVEL EXCEEDED
0005 01 OBSERVED MINUS PREDICTED WATER LEVEL VALUE LIMIT EXCEEDED
0006 02 OBSERVED VALUE FROM PRIMARY WATER LEVEL SENSOR MINUS
BACKUP WATER LEVEL SENSOR
0007 01 VALUE EXCEEDED SPECIFIED TOLERANCE FROM EXPECTED VALUE
0008 01 WATER LEVEL QA PARAMETER (SIGMAS AND/OR OUTLIERS) LIMITS EXCEEDED
0009 01 SEA TEMPERATURE OUTSIDE OF EXPECTED RANGE
0010 01 MULTIPLE QC CHECKS (ABOVE) FAILED
0011 01 NO AUTOMATED WATER LEVEL CHECKS PERFORMED
0031 01 MISSING VALUE
022121 0009 0000 01 OPERATIONAL
0001 01 POSSIBLE CLOGGING PROBLEM OR OTHERWISE DEGRADED WATE LEVEL DATA
0002 01 POSSIBLE DATUM SHIFT
0003 01 UNKNOWN STATUS OF WATER LEVEL SENSOR
0004 01 SUSPECTED OR KNOWN SEA TEMPERATURE SENSOR PROBLEM
0005 01 MULTIPLE POSSIBLE PROBLEMS (ABOVE)
0006 01 BAD DATA- DO NOT DISSEMINATE
0007 01 NO MANUAL WATER LEVEL CHECKS PERFORMED
0031 01 MISSING VALUE
022122 0008 0000 01 GOOD DATA FROM ALL SENSORS
0001 01 WIND DIRECTION OUTSIDE OF ALLOWABLE RANGE
0002 01 WIND SPEED OUTSIDE OF EXPECTED RANGE
0003 01 BAROMETRIC PRESSURE OUTSIDE OF EXPECTED RANGE
0004 01 AIR TEMPERATURE OUTSIDE OF EXPECTED RANGE
0005 01 MULTIPLE SENSOR FAILED QC CHECKS
0006 01 NO AUTOMATED METEOROLOGICAL DATA CHECKS PERFORMED
0031 01 MISSING VALUE
022123 0009 0000 01 OPERATIONAL
0001 01 SUSPECTED OR KNOWN PROBLEM WITH WIND SENSOR
0002 01 SUSPECTED OR KNOWN PROBLEM WITH BAROMETRIC PRESSURE SENSOR
0003 01 SUSPECTED OR KNOWN PROBLEM WITH AIR TEMPERATURE SENSOR
0004 01 UNKNOWN STATUS OF ALL SENSORS
0005 01 SUSPECTED OR KNOWN PROBLEMS WITH MULTIPLE SENSORS
0006 01 BAD DATA - DO NOT DISSEMINATE
0007 01 NO MANUAL METEOROLOGICAL DATA CHECKS PERFORMED
0031 01 MISSING VALUE
022252 0006 0000 01 AUTOMATIC QUALITY CONTROL PASSED AND NOT MANUALLY CHECKED
0001 02 AUTOMATIC QUALITY CONTROL PASSED AND MANUALLY CHECKED AND
PASSED
0002 02 AUTOMATIC QUALITY CONTROL PASSED AND MAGNOLIA CHECKED AND
DELETED
0003 01 AUTOMATIC QUALITY CONTROL FAILED AND MANUALLY NOT CHECKED
0004 02 AUTOMATIC QUALITY CONTROL FAILED AND MANUALLY CHECKED AND
FAILED

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0005 02 AUTOMATIC QUALITY CONTROL FAILED AND MANUALLY CHECKED AND
      RE-INSERTED
023001 0005 0000 01 RESERVED
            0001 01 ARTICLES 1 AND 2
            0002 01 ARTICLE 3
            0003 01 ARTICLE 5.2
            0007 01 MISSING VALUE
023002 0016 0000 01 reserved
            0001 01 NUCLEAR REACTOR ON GROUND
            0002 01 NUCLEAR REACTOR ON SEA
            0003 01 NUCLEAR REACTOR IN SPACE
            0004 01 NUCLEAR FULE FACILITY
            0005 01 RADIOACTIVE WASTE MANAGMENT FACITILY
            0006 01 TRANSPORT OF NUCLEAR FUEL OR RADIOACTIVE WASTE
            0007 01 STORAGE OF NUCLEAR FUEL OR RADIOACTIVE WASTE
            0008 01 MANUFACTURE OF RADIO-ISOTOPES
            0009 01 USE OF RADIO-ISOTOPES
            0010 01 STORAGE OF RADIO-ISOTOPES
            0011 01 DISPOSAL OF RADIO-ISOTOPS
            0012 01 TRANSPORT OF RADIO-ISOTOPES
            0013 01 USE OF RADIO-ISOTOPES FOR POWER GENERATION
            0030 01 OTHER
            0031 01 MISSING VALUE
023003 0008 0000 01 NO RELEASE
            0001 01 RELEASE TO ATMOSPHERE
            0002 01 RELEASE TO WATER
            0003 01 RELEASE TO BOTH ATMOSPHERE AND WATER
            0004 01 EXPECTED RELEASE TO ATMOSPHERE
            0005 01 EXPECTED RELEASE TO WATER
            0006 01 EXPECTED RELEASE TO BOTH ATMOSPHERE AND WATER
            0007 01 MISSING VALUE
023004 0006 0000 01 NO COUNTERMEASURE
            0001 01 EVACUATION
            0002 01 SHELTERING
            0003 01 PROPHILAXIS
            0004 01 WATER
            0007 01 MISSING VALUE
023005 0004 0000 01 INCIDENT STAT DOES NOT UNDERSTAND WHAT HAPPENED
            0001 01 INCIDENT STATE KNOWS THE CAUSE OF THE INCIDENT
            0002 01 RESERVED
            0003 01 MISSING VALUE
023006 0008 0000 01 NO IMPROVEMENT
            0001 01 UNSTABLE
            0002 01 NO DETERIORATION
            0003 01 IMPROVING
            0004 01 STABLE
            0005 01 DETERIORATING
            0006 01 RESERVED
            0007 01 MISSING VALUE
023007 0005 0000 01 NO RELEASE
            0001 01 RELEASE HAS STOPPED
            0002 01 RELEASE
            0003 01 RELEASE IS CONTINUING
            0007 01 MISSING VALUE
023008 0004 0000 01 GASEUS
            0001 01 PARTICULATE
            0002 01 MIXTURE OF GASEUS AND PARTICULATE
            0003 01 MISSING VALUE
023009 0004 0000 01 GASEUS
            0001 01 PARTICULATE
            0002 01 MIXTURE OF GASEUS AND PARTICULATE
            0003 01 MISSING VALUE
023016 0004 0000 01 NO SIGNIFICANT TOXIC HEALTH EFFECT
            0001 01 SIGNIFICANT CHEMICAL TOXIC HEALTH EFFECT POSSIBLE
            0002 01 RESERVED
            0003 01 MISSING VALUE
023018 0006 0000 01 RELEASE NO LONGER OCCURRING
            0001 01 RELEASE STILL OCCURRING
            0002 01 RELEASE EXPECTED TO INCREASE IN NEXT SIX HOURS
            0003 01 RELEASE EXPECTED TO REMAIN CONSTANT IN NEXT SIX HOURS
            0004 01 RELEASE EXPECTED TO DECREASE IN NEXT SIX HOURS
            0007 01 MISSING VALUE
023031 0004 0000 01 PLUME WILL NOT ENCOUNTER RAIN IN INCIDENT STATE
            0001 01 PLUME WILL ENCOUNTER RAIN IN INCIDENT STATE
            0002 01 RESERVED
            0003 01 MISSING VALUE
023032 0004 0000 01 NO SIGNIFICANT CHANGE EXPECTED WITHIN NEXT SIX HOURS
            0001 01 ANTICIPATED SIGNIFICANT CHANGE EXPECTED WITHIN NEXT SIX HOURS
            0002 01 RESERVED
            0003 01 MISSING VALUE
024003 0005 0000 01 NOBLE GASES
            0001 01 IODINES
            0002 01 CAESIUM
            0003 01 TRANSURANICS
            0031 01 MISSING VALUE
025004 0004 0000 01 INCOHERENT
            0001 01 COHERENT (DOPPLER)
            0002 01 RESERVED
            0003 01 MISSING VALUE
025005 0004 0000 01 LOGATITHM - 2.5 DB
            0001 01 LINEAR
            0002 01 SPECIAL
            0003 01 MISSING VALUE
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025006 0005 0000 01 ZH TO R CONVERSION
              0001 01 (ZH, ZDR) TO (NO.DO) TO R
              0002 01 (Z(F1),Z(F2)) TO ATTENUATION TO R
              0006 01 OTHER
              0007 01 MISSING VALUE
025009 0004 0001 01 NONE
              0002 01 CALIBRATION TARGET OR SIGNAL
              0003 01 AGAINST RAINGAGES
              0004 01 AGAINST OTHER INSTRUMENTS (DISTROMETER-ATTENUATION)
025010 0008 0000 01 NONE
              0001 01 MAP
              0002 01 INSERTION OF HIGHER ELEVATION DATA AND MAP
              0003 01 ANALYSIS OF FLUCTUATING LOGARITHM SIGNAL (CLUTTER DETECTION)
              0004 01 EXTRACTION OF FLUCTUATING PART OF LINEAR SIGNAL (CLUTTER SUPPRESSION)
              0005 01 CLUTTER SUPPRESSION DOPPLER
              0006 01 MULTIPARAMETER ANALYSIS
              0015 01 MISSING VALUE
025011 0004 0000 01 NONE
              0001 01 MAP OF CORRECTION FACTORS
              0002 01 INTERPOLATION (AZIMUTH OR ELEVATION)
              0003 01 MISSING VALUE
025012 0004 0000 01 HARDWARE
              0001 01 SOFTWARE
              0002 01 HARDWARE AND SOFTWARE
              0003 01 MISSING VALUE
025013 0001 0001 01 BRIGHT BAND CORRECTION
025015 0001 0001 01 RADOME ATTENUATION CORRECTION
025017 0001 0001 01 PRECIPITATION ATTENUATION CORRECTION
025020 0004 0000 01 FTT (FAST FOURIER TRANSFORM)
              0001 01 PPP (PULSE PAIR PROCESSING)
              0002 01 VPC (VECTOR-PHASE CHANGE)
              0003 01 MISSING VALUE
025021 0005 0001 01 SIMPLE AVERAGE
              0002 01 CONSENSUS AVERAGE
              0003 01 MEDIAN CHECK
              0004 01 VERTICAL CONSISTENCY CHECK
              0005 01 OTHER
025030 0004 0000 01 RUNNING MEAN SEA-SURFACE TEMPERATURE NOT USED BECAUSE USAGE CRITERIA NOT MET
              0001 01 RUNNING MEAN SEA-SURFACE TEMPERATURE NOT USED BECAUSE DATA NOT AVAILABLE
              0002 01 RUNNING MEAN SEA-SURFACE TEMPERATURE USED AS PREDICTOR
              0003 01 MISSING VALUE
025032 0004 0000 01 RESERVED
              0001 01 DATA FROM LOW MODE
              0002 01 DATA FROM HIGH MODE
              0003 01 MISSING VALUE
025033 0004 0000 01 WIND PROFILER OPERATING IN SUBMODE A
              0001 01 WIND PROFILER OPERATING IN SUBMODE B
              0002 01 RESERVED
              0003 01 MISSING VALUE
025034 0004 0001 01 TEST A PERFORMED AND FAILED
              0002 01 TEST B PERFORMED AND FAILED
              0003 01 TEST RESULTS INCONCLUSIVE
025036 0004 0000 02 Network of several direction-finders operating on
                    the same individual atmospherics
              0001 02 Network of several arrival-time stations operating on
                    the same individual atmospherics
              0006 01 Single station range bearing technique
              0015 01 Missing value
025040 0010 0000 01 NON-SPECIFIC MODE
              0001 01 FIRST GUESS DATA
              0002 01 CLOUD DATA
              0003 01 AVERAGE VECTOR DATA
              0004 01 PRIMARY DATA
              0005 01 GUESS DATA
              0006 01 VECTOR DATA
              0007 01 TRACER DATA; THE IMAGE
              0008 01 TRACER DATA TO NEXT IMAGE
              0015 01 MISSING VALUE
025041 0004 0000 01 DIRECTION ORIGINALLY REPORTED IN TRUE DEGREES
              0001 01 DIRECTION ORIGINALLY REPORTED USING CODE TABLE 0700, FM 13
              0002 01 RESERVED
              0003 01 MISSING VALUE
025042 0004 0000 01 SPEED ORIGINALLY REPORTED IN METERS PER SECOND
              0001 01 SPEED ORIGINALLY REPORTED USING CODE TABLE 2251, FM 13
              0002 01 RESERVED
              0003 01 MISSING VALUE
025045 0020 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
              0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
              0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
              0004 01 CHANNEL 4 PRESENT - (SET TO 1 PRESENT)
              0005 01 CHANNEL 5 PRESENT - (SET TO 1 PRESENT)
              0006 01 CHANNEL 6 PRESENT - (SET TO 1 PRESENT)
              0007 01 CHANNEL 7 PRESENT - (SET TO 1 PRESENT)
              0008 01 CHANNEL 8 PRESENT - (SET TO 1 PRESENT)
              0009 01 CHANNEL 9 PRESENT - (SET TO 1 PRESENT)
              0010 01 CHANNEL 10 PRESENT - (SET TO 1 PRESENT)
              0011 01 CHANNEL 11 PRESENT - (SET TO 1 PRESENT)
              0012 01 CHANNEL 12 PRESENT - (SET TO 1 PRESENT)
              0013 01 CHANNEL 13 PRESENT - (SET TO 1 PRESENT)
              0014 01 CHANNEL 14 PRESENT - (SET TO 1 PRESENT)
              0015 01 CHANNEL 15 PRESENT - (SET TO 1 PRESENT)
              0016 01 CHANNEL 16 PRESENT - (SET TO 1 PRESENT)
              0017 01 CHANNEL 17 PRESENT - (SET TO 1 PRESENT)

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0018 01 CHANNEL 18 PRESENT - (SET TO 1 PRESENT)
0019 01 CHANNEL 19 PRESENT - (SET TO 1 PRESENT)
0020 01 CHANNEL 20 PRESENT - (SET TO 1 PRESENT)
025046 0004 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
0004 01 CHANNEL 4 PRESENT - (SET TO 1 PRESENT)
025047 0003 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
025048 0015 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
0004 01 CHANNEL 4 PRESENT - (SET TO 1 PRESENT)
0005 01 CHANNEL 5 PRESENT - (SET TO 1 PRESENT)
0006 01 CHANNEL 6 PRESENT - (SET TO 1 PRESENT)
0007 01 CHANNEL 7 PRESENT - (SET TO 1 PRESENT)
0008 01 CHANNEL 8 PRESENT - (SET TO 1 PRESENT)
0009 01 CHANNEL 9 PRESENT - (SET TO 1 PRESENT)
0010 01 CHANNEL 10 PRESENT - (SET TO 1 PRESENT)
0011 01 CHANNEL 11 PRESENT - (SET TO 1 PRESENT)
0012 01 CHANNEL 12 PRESENT - (SET TO 1 PRESENT)
0013 01 CHANNEL 13 PRESENT - (SET TO 1 PRESENT)
0014 01 CHANNEL 14 PRESENT - (SET TO 1 PRESENT)
0015 01 CHANNEL 15 PRESENT - (SET TO 1 PRESENT)
025049 0005 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
0004 01 CHANNEL 4 PRESENT - (SET TO 1 PRESENT)
0005 01 CHANNEL 5 PRESENT - (SET TO 1 PRESENT)
025051 0006 0001 01 CHANNEL 1 PRESENT - (SET TO 1 PRESENT)
0002 01 CHANNEL 2 PRESENT - (SET TO 1 PRESENT)
0003 01 CHANNEL 3 PRESENT - (SET TO 1 PRESENT)
0004 01 CHANNEL 4 PRESENT - (SET TO 1 PRESENT)
0005 01 CHANNEL 5 PRESENT - (SET TO 1 PRESENT)
0006 01 CHANNEL 6 PRESENT - (SET TO 1 PRESENT)
025053 0006 0001 01 GOOD
0002 01 REDUNDANT
0003 01 QUESTIONABLE
0004 01 BAD
0005 01 EXPERIMENTAL
0006 01 PRECIPITATING
025069 0007 0001 01 Smoothed
0002 01 Baseline adjusted
0003 01 Normalized time interval
0004 01 Outlier checked
0005 01 Plausibility checked
0006 01 Consistency checked
0007 01 Interpolated
025086 0004 0000 01 Depths are not corrected
0001 01 Depths are corrected
0002 01 Reserved
0003 01 Missing value
025093 0003 0001 01 No correction
0002 01 Vertical velocity correction
0007 01 All corrections
025095 0001 0001 02 Altimeter operating (set to 0 if nominal, set to
    backup)
025096 0004 0001 01 Mode indicator (0 if Mode 2, 1 if Mode 1)
0002 03 Mode 1 Calibration sequence indicator (0 if
    normal data taking either Mode 1 or 2, 1 if Mode 1 Calibration sequence)
    Bits 3 and 4 indicate active 23.8 GHz channel
0003 01 Channel 2 (0 if on, 1 if off)
0004 01 Channel 3 (0 if on, 1 if off)
025097 0011 0000 01 Ranges between 0 and 30 cm
0001 01 Ranges between 30 and 60 cm
0002 01 Ranges between 60 and 90 cm
0003 01 Ranges between 90 and 120 cm
0004 01 Ranges between 120 and 150 cm
0005 01 Ranges between 150 and 180 cm
0006 01 Ranges between 180 and 210 cm
0007 01 Ranges between 210 and 240 cm
0008 01 Ranges between 240 and 270 cm
0009 01 Ranges larger than 270 cm
0015 01 Missing value
025110 0006 0001 02 Raw data analysis used for raw data correction.
    Correction done using default parameters
0002 01 Raw data analysis used for raw data correction.
    Correction done using raw data analysis results
0003 01 Antenna elevation pattern correction applied
0004 01 Nominal chirp replica used
0005 01 Reconstructed chirp used
0006 01 Slant range to ground range conversion applied
025120 0004 0000 02 Percentage of DSRs free of processing errors during Level
    2 processing is greater than the acceptable threshold
0001 02 Percentage of DSRs free of processing errors during Level
    2 processing is less than the acceptable threshold
0002 01 Reserved
0003 01 Missing value
025122 0004 0000 01 Hardware configuration for RF is A
0001 01 Hardware configuration for RF is B
0002 01 Reserved
0003 01 Missing value
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025123 0004 0000 01 Hardware configuration for HPA is A
              0001 01 Hardware configuration for HPA is B
              0002 01 Reserved
              0003 01 Missing value
025124 0004 0000 01 Percentage of DSRs free of processing errors during Level
              2 processing is greater than the acceptable threshold
              0001 02 Percentage of DSRs free of processing errors during Level
              2 processing is less than the acceptable threshold
              0002 01 Reserved
              0003 01 Missing value
026010 0025 0001 01 0100 included
              0002 01 0200 included
              0003 01 0300 included
              0004 01 0400 included
              0005 01 0500 included
              0006 01 0600 included
              0007 01 0700 included
              0008 01 0800 included
              0009 01 0900 included
              0010 01 1000 included
              0011 01 1100 included
              0012 01 1200 included
              0013 01 1300 included
              0014 01 1400 included
              0015 01 1500 included
              0016 01 1600 included
              0017 01 1700 included
              0018 01 1800 included
              0019 01 1900 included
              0020 01 2000 included
              0021 01 2100 included
              0022 01 2200 included
              0023 01 2300 included
              0024 01 2400 included
              0025 01 Unknown mixture of hours
029001 0006 0000 01 GNOMONIC PROJECTION
              0001 01 POLAR STEREOGRAPHIC PROJECTION
              0002 01 LAMBERT'S CONFORMAL CONIC PROJECTION
              0003 01 MERCATOR'S PROJECTION
              0004 01 SCANNING CONE (RADAR)
              0007 01 MISSING VALUE
029002 0004 0000 01 CARTESIAN
              0001 01 POLAR
              0002 01 OTHER
              0007 01 MISSING VALUE
030031 0013 0000 01 PPI
              0001 01 COMPOSITE
              0002 01 CAPPI
              0003 01 VERTICAL SECTION
              0004 01 ALPHANUMERIC DATA
              0005 01 MAP OF SUBJECT CLUTTER
              0006 01 MAP
              0007 01 TEST PICTURE
              0008 01 COMMENTS
              0009 01 MAP OF GROUND OCCULTATION
              0010 01 MAP OF RADAR BEAM HEIGHT
              0014 01 OTHER
              0015 01 MISSING VALUE
030032 0009 0001 01 MAP
              0002 01 SATELLITE IR
              0003 01 SATELLITE VIS
              0004 01 SATELLITE WV
              0005 01 SATELLITE MULTISPECTRAL
              0006 01 SYNOPTIC OBSERVATIONS
              0007 01 FORECAST PARAMETERS
              0008 01 LIGHTNING DATA
              0015 01 OTHER DATA
031021 0004 0001 01 1 BIT INDICATOR OF QUALITY, 0= GOOD; 1=SUSPECT OR BAD
              0002 02 2 BIT INDICATOR OF QUALITY, 0= GOOD; 1= SLIGHTLY SUSPECTED;
              2= HIGHLY SUSPECTED; 3=BAD
              0007 01 PERCENTAGE CONFIDENCE
              0063 01 MISSING VALUE
033002 0004 0000 01 DATA NOT SUSPECT
              0001 01 DATA SUSPECT
              0002 01 RESERVED
              0003 01 MISSING VALUE
033003 0005 0000 01 DATA NOT SUSPECT
              0001 01 DATA SLIGHTLY SUSPECT
              0002 01 DATA HIGHLY SUSPECT
              0003 01 DATA CONSIDERED UNFIT FOR USE
              0007 01 MISSING VALUE
033005 0023 0001 01 No automated meteorological data checks performed
              0002 01 Pressure data suspect
              0003 01 Wind data suspect
              0004 01 Dry-bulb temperature data suspect
              0005 01 Wet-bulb temperature data suspect
              0006 01 Humidity data suspect
              0007 01 Ground temperature data suspect
              0008 01 Soil temperature (depth 1) data suspect
              0009 01 Soil temperature (depth 2) data suspect
              0010 01 Soil temperature (depth 3) data suspect
              0011 01 Soil temperature (depth 4) data suspect
              0012 01 Soil temperature (depth 5) data suspect

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0013 01 Cloud data suspect
0014 01 Visibility data suspect
0015 01 Present weather data suspect
0016 01 Lightning data suspect
0017 01 Ice deposit data suspect
0018 01 Precipitation data suspect
0019 01 State of ground data suspect
0020 01 Snow data suspect
0021 01 Water content data suspect
0022 01 Evaporation/evapotranspiration data suspect
0023 01 Sunshine data suspect
033006 0005 0000 01 Self-check OK
0001 01 At least one Warning active, no Alarms
0002 01 At least one Alarm active
0003 01 Sensor failure
0007 01 Missing value
033015 0016 0000 01 Passed all checks
0001 01 Missing-data check
0002 01 Descending/reascending balloon check
0003 01 Data plausibility check (above limits)
0004 01 Data plausibility check (below limits)
0005 01 Superadiabatic lapse rate check
0006 01 Limiting angles check
0007 01 Ascension rate check
0008 01 Excessive change from previous flight
0009 01 Balloon overhead check
0010 01 Wind speed check
0011 01 Wind direction check
0012 01 Dependency check
0013 01 Data valid but modified
0014 01 Data outlier check
0063 01 Missing data
033020 0008 0000 01 GOOD
0001 01 INCONSISTENT
0002 01 DOUBTFUL
0003 01 WRONG
0004 01 NOT CHECKED
0005 01 HAS BEEN CHECKED
0006 01 RESERVED
0007 01 MISSING VALUE
033021 0004 0000 01 WITHIN LIMITS
0001 01 OUTSIDE LIMITS
0002 01 RESERVED
0003 01 MISSING VALUE
033022 0004 0000 01 GOOD (SEVERAL IDENTICAL REPORTS HAVE BEEN RECEIVED)
0001 01 DUBIOUS (NO IDENTICAL REPORT HAVE BEEN RECEIVED)
0002 01 RESERVED
0003 01 MISSING VALUE
033023 0004 0000 01 RELIABLE (LOCATION WAS MADE OVER TWO SATELLITE PASSES)
0001 01 LATEST KNOWN (NO LOCATION OVER CORRESPONDING PASS)
0002 01 DUBIOUS
0003 01 MISSING VALUE
033024 0010 0000 01 RESERVED
0001 01 EXCELLENT - WITHIN 3 METRES
0002 01 GOOD - WITHIN 10 METRES
0003 01 FAIR - WITHIN 20 METRES
0004 01 POOR - MORE THAN 20 METRES
0005 01 EXCELLENT -WITHIN 10 FEET
0006 01 GOOD WITHIN-30 FEET
0007 01 FAIR WITHIN 60 FEET
0008 01 POOR - MORE THAN 60 FEET
0015 01 MISSING VALUE
033025 0005 0000 01 TIME INTERPOLATED, LATITUDE AND LONGITUDE REPORTED
0001 01 TIME REPORTED, LATITUDE AND LONGITUDE INTERPOLATED
0002 01 TIME, LATITUDE AND LONGITUDE INTERPOLATED
0003 01 TIME, LATITUDE AND LONGITUDE REPORTED
0007 01 MISSING VALUE
033026 0010 0000 01 NORMAL OPERATIONS - MEASUREMENT MODE
0001 01 NORMAL OPERATIONS - NON-MEASUREMENT MODE
0002 01 SMALL RH
0003 01 HUMIDITY ELEMENT IS WET
0004 01 HUMIDITY ELEMENT IS CONTAMINATED
0005 01 HEATER FAIL
0006 01 HEATER FAIL AND WET/CONTAMINATED HUMIDITY ELEMENT
0007 01 SINGLE VALIDITY BAD
0008 01 NUMERIC ERROR
0063 01 MISSING VALUE
033027 0005 0000 01 RADIUS >= 1500 M
0001 01 500 M <= RADIUS < 1500 M
0002 01 250 M <= RADIUS < 500 M
0003 01 RADIUS < 250 M
0007 01 MISSING VALUE
033030 0007 0001 01 Do not use scan for product generation
0002 01 Time sequence error detected with this scan
0003 01 Data gap precedes this scan
0004 01 No calibration
0005 01 No earth location
0006 01 First good time following a clock update
0007 01 Instrument status changed with this scan
033031 0021 0001 01 Time field is bad but can probably be inferred from the previous good time
0002 01 Time field is bad and can't be inferred from the previous good time
0003 04 This record starts a sequence that is inconsistent with
previous times (i.e. there is a time discontinuity). This may or may
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        not be associated with a spacecraft clock update (see scan line
        status flags for ATOVS)
0004 02 Start of a sequence that apparently repeats scan
        times that have been previously accepted
0005 01 Scan line was not calibrated because of bad time
0006 03 Scan line was calibrated using fewer than the preferred
        number of scan lines because of proximaty to start or
        end of data or to a data gap
0007 01 Scan line was not calibrated because of bad or insufficient PRT data
0008 01 Scan line was calibrated but with marginal PRT data
0009 01 Some uncalibrated channels on this scan
0010 01 Uncalibrated due to instrument mode
0011 01 Questionable calibration because of antenna position error of space view
0012 01 Questionable calibration because of antenna position error of black body
0013 01 Not earth located because of bad time
0014 03 Earth location questionable because of
        questionable time code (see time problem
        code bits)
0015 02 Earth location questionable - only marginal agreement
        with reasonableness check
0016 01 Earth location questionable - fails reasonableness check
0017 01 Earth location questionable because of antenna position check
0018 01 Scan line calibration cold black body
0019 01 Scan line calibration warm black body
0020 01 Scan line calibration space view
0021 01 Earth view
033032 0006 0001 01 No good blackbody counts for scan line
        0002 01 No good space view counts for this line
        0003 01 No good PRTs for this line
        0004 01 Some bad blackbody view counts for this line
        0005 01 Some bad space view counts for this line
        0006 01 Some bad PRT temps on this line
033033 0023 0001 01 Set if secondary calibration used
        0002 02 brightness temperature in channel 1 is physically unreasonable or has not
        been calculated due to calibration problems
        0003 02 brightness temperature in channel 2 is physically unreasonable or has not
        been calculated due to calibration problems
        0004 02 brightness temperature in channel 3 is physically unreasonable or has not
        been calculated due to calibration problems
        0005 02 brightness temperature in channel 4 is physically unreasonable or has not
        been calculated due to calibration problems
        0006 02 brightness temperature in channel 5 is physically unreasonable or has not
        been calculated due to calibration problems
        0007 02 brightness temperature in channel 6 is physically unreasonable or has not
        been calculated due to calibration problems
        0008 02 brightness temperature in channel 7 is physically unreasonable or has not
        been calculated due to calibration problems
        0009 02 brightness temperature in channel 8 is physically unreasonable or has not
        been calculated due to calibration problems
        0010 02 brightness temperature in channel 9 is physically unreasonable or has not
        been calculated due to calibration problems
        0011 02 brightness temperature in channel 10 is physically unreasonable or has not
        been calculated due to calibration problems
        0012 02 brightness temperature in channel 11 is physically unreasonable or has not
        been calculated due to calibration problems
        0013 02 brightness temperature in channel 12 is physically unreasonable or has not
        been calculated due to calibration problems
        0014 02 brightness temperature in channel 13 is physically unreasonable or has not
        been calculated due to calibration problems
        0015 02 brightness temperature in channel 14 is physically unreasonable or has not
        been calculated due to calibration problems
        0016 02 brightness temperature in channel 15 is physically unreasonable or has not
        been calculated due to calibration problems
        0017 02 brightness temperature in channel 16 is physically unreasonable or has not
        been calculated due to calibration problems
        0018 02 brightness temperature in channel 17 is physically unreasonable or has not
        been calculated due to calibration problems
        0019 02 brightness temperature in channel 18 is physically unreasonable or has not
        been calculated due to calibration problems
        0020 02 brightness temperature in channel 19 is physically unreasonable or has not
        been calculated due to calibration problems
        0021 02 brightness temperature in channel 20 is physically unreasonable or has not
        been calculated due to calibration problems
        0022 01 Set if all channels are missing
        0023 01 Suspect
033035 0010 0000 01 Automatic quality control passed and not manually checked
        0001 01 Automatic quality control passed and manually checked and passed
        0002 01 Automatic quality control passed and manually checked and deleted
        0003 01 Automatic quality control failed and manually not checked
        0004 01 Automatic quality control failed and manually checked and failed
        0005 01 Automatic quality control failed and manually checked and re-inserted
        0006 01 Automatic quality control flagged data as questionable and not manually checked
        0007 02 Automatic quality control flagged data as questionable
        and manually checked and failed
        0008 01 Manually checked and failed
        0015 01 Missing value
033037 0020 0001 01 U departure from guess
        0002 01 V departure from guess
        0003 01 U & V departure from guess
        0004 01 U acceleration
        0005 01 V acceleration
        0006 01 U & V acceleration
        0007 01 Possible land feature

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0008 01 U acceleration and possible land feature
0009 01 V acceleration and possible land feature
0010 01 U & V acceleration and possible land feature
0011 01 Bad wind guess
0012 01 Correlation failure
0013 01 Search box off edge of area
0014 01 Target box off edge of area
0015 01 Pixel brightness out of bounds (noisy line)
0016 01 Target outside of lat/long box
0017 01 Target outside of pressure min/max
0018 01 Autoeditor flagged slow vector
0020 01 Autoeditor flagged vectors
033038 0009 0001 01 Total Zenith Delay quality is considered poor
              0002 01 GALILEO satellites used
              0003 01 GLONASS satellites used
              0004 01 GPS satellites used
              0005 01 Meteorological data applied
              0006 01 Atmospheric loading correction applied
              0007 01 Ocean tide loading applied
              0008 01 Climate quality data processing
              0009 01 Near-real time data processing
033039 0009 0001 01 Non-nominal quality
              0002 01 Offline product
              0003 01 Ascending occultation flag
              0004 01 Excess Phase processing non-nominal
              0005 01 Bending Angle processing non-nominal
              0006 01 Refractivity processing non-nominal
              0007 01 Meteorological processing non-nominal
              0014 01 Background profile non-nominal
              0015 01 Background (i.e. not retrieved) profile present
033041 0004 0000 01 The following value is the true value
              0001 02 The following value is higher than the true value
                     (the measurement hit the lower limit of the instrument)
              0002 02 The following value is lower than the true value
                     (the measurement hit the higher limit of the instrument)
              0003 01 Missing value
033042 0005 0000 01 Exclusive lower limit (>)
              0001 01 Inclusive lower limit (>=)
              0002 01 Exclusive upper limit (<)
              0003 01 Inclusive upper limit (<=)
              0007 01 Missing value
033043 0004 0001 02 Sea MDS. Nadir only SST retrieval used 3.7 Micron
                     channel. Land MDS reserved
              0002 02 Sea MDS. Dual view SST retrieval used 3.7 Micron
                     channel. Land MDS reserved.
              0003 01 Nadir view contains day time data
              0004 01 Forward view contains day time data
033044 0014 0001 01 Input data mean outside nominal range flag
              0002 01 Input data standard deviation outside nominal range flag
              0003 01 Number of input data gaps > threshold value
              0004 01 Percentage of missing lines > threshold value
              0005 01 Doppler centroid uncertain. Confidence measure < specific value
              0006 01 Doppler ambiguity estimate uncertain. Confidence measure < specific value
              0007 01 Output data mean outside nominal range flag
              0008 01 Output data standard deviation outside nominal range flag
              0009 01 Chirp reconstruction failed or is of low quality flag
              0010 01 Data set missing
              0011 01 Invalid downlink parameters
              0012 02 Azimuth cut-off iteration count. The azimuth
                     cut-off fit did not converge within a minimum number of iterations
              0013 02 Azimuth cut-off fit did not converge within a minimum
                     number of iterations
              0014 03 Phase information confidence measure. The imaginary spectral
                     peak is less than a minimum threshold, or the zero lag shift
                     is greater than a minimum threshold
033047 0026 0001 01 Error detected and attempts to recover made
              0002 01 Anomaly in on-board data handling (OBDH) value detected
              0003 01 Anomaly in Ultra Stable Oscillator Processing (USOP) value detected
              0004 01 Errors detected by on-board computer
              0005 01 Automatic gain control (AGC) out of range
              0006 01 Rx delay fault. Rx distance out of range
              0007 01 Wave form samples fault identifier. Error
              0012 01 Brightness temperature (channel 1) out of range
              0013 01 Brightness temperature (channel 2) out of range
              0014 01 Reserved
              0015 01 Ku Ocean retracking error
              0016 01 S Ocean retracking error
              0017 01 Ku Ice 1 retracking error
              0018 01 S Ice 1 retracking error
              0019 01 Ku Ice 2 retracking error
              0020 01 S Ice 2 retracking error
              0021 01 Ku Sea Ice retracking error
              0022 01 Arithmetic fault error
              0023 01 Meteo data state. No map
              0024 01 Meteo data state. 1 map
              0025 01 Meteo data state 2 maps degraded
              0026 01 Meteo data state 2 maps nominal
              0027 01 Orbit propagator status for propagation mode, several errors
              0028 01 Orbit propagator status for propagation mode, warning detected
              0029 01 Orbit propagator status for initialisation mode, several errors
              0030 01 Orbit propagator status for initialisation mode, warning detected
033048 0004 0000 01 Inversion successful
              0001 01 Inversion not successful
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0002 01 Reserved
0003 01 Missing value
033049 0004 0000 01 External wind direction used during inversion
0001 01 External wind direction not used during inversion
0002 01 Reserved
0003 01 Missing value
033050 0008 0000 01 Unqualified
0001 01 Correct value (all checks passed)
0002 01 Probably good but value inconsistent with statistics (differ from climatology)
0003 01 Probably bad (spike, gradient, "E if other tests passed)
0004 02 Bad value, Impossible value (out of scale, vertical
        instability, constant profile)
0005 01 Value modified during quality control
0008 01 Interpolated value
0015 01 Missing value
033052 0020 0001 01 Data block 1 invalid (S band)
0002 01 Data block 2 invalid (S band)
0003 01 Data block 3 invalid (S band)
0004 01 Data block 4 invalid (S band)
0005 01 Data block 5 invalid (S band)
0006 01 Data block 6 invalid (S band)
0007 01 Data block 7 invalid (S band)
0008 01 Data block 8 invalid (S band)
0009 01 Data block 9 invalid (S band)
0010 01 Data block 10 invalid (S band)
0011 01 Data block 11 invalid (S band)
0012 01 Data block 12 invalid (S band)
0013 01 Data block 13 invalid (S band)
0014 01 Data block 14 invalid (S band)
0015 01 Data block 15 invalid (S band)
0016 01 Data block 16 invalid (S band)
0017 01 Data block 17 invalid (S band)
0018 01 Data block 18 invalid (S band)
0019 01 Data block 19 invalid (S band)
0020 01 Data block 20 invalid (S band)
033053 0020 0001 01 Data block 1 invalid (Ku band)
0002 01 Data block 2 invalid (Ku band)
0003 01 Data block 3 invalid (Ku band)
0004 01 Data block 4 invalid (Ku band)
0005 01 Data block 5 invalid (Ku band)
0006 01 Data block 6 invalid (Ku band)
0007 01 Data block 7 invalid (Ku band)
0008 01 Data block 8 invalid (Ku band)
0009 01 Data block 9 invalid (Ku band)
0010 01 Data block 10 invalid (Ku band)
0011 01 Data block 11 invalid (Ku band)
0012 01 Data block 12 invalid (Ku band)
0013 01 Data block 13 invalid (Ku band)
0014 01 Data block 14 invalid (Ku band)
0015 01 Data block 15 invalid (Ku band)
0016 01 Data block 16 invalid (Ku band)
0017 01 Data block 17 invalid (Ku band)
0018 01 Data block 18 invalid (Ku band)
0019 01 Data block 19 invalid (Ku band)
0020 01 Data block 20 invalid (Ku band)
033060 0004 0000 01 PARAMETER=GOOD
0001 01 PARAMETER=BAD
0002 01 PARAMETER=RESERVED
0003 01 MISSING
033195 0004 0000 01 DEALIASING NOT USED
0001 01 DEALIASING USED
0002 01 RESERVED
0003 01 MISSING
033205 0016 0000 01 DATUM CORRECT
0001 01 DATUM PROBABLY CORRECT
0002 01 DATUM PROBABLY INCORRECT
0003 01 DATUM INCORRECT
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 MISSING VALUE
033206 0016 0000 01 DATUM CORRECT
0001 01 DATUM PROBABLY CORRECT
0002 01 DATUM PROBABLY INCORRECT
0003 01 DATUM INCORRECT
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED

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0014 01 NOT DEFINED
0015 01 MISSING VALUE
033207 0016 0000 01 DATUM CORRECT
0001 01 DATUM PROBABLY CORRECT
0002 01 DATUM PROBABLY INCORRECT
0003 01 DATUM INCORRECT
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 MISSING VALUE
033208 0016 0000 01 DATUM CORRECT
0001 01 DATUM PROBABLY CORRECT
0002 01 DATUM PROBABLY INCORRECT
0003 01 DATUM INCORRECT
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 MISSING VALUE
033209 0016 0000 01 DATUM CORRECT
0001 01 DATUM PROBABLY CORRECT
0002 01 DATUM PROBABLY INCORRECT
0003 01 DATUM INCORRECT
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 MISSING VALUE
033220 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 REPORT REJECTED THROUGH THE NAMELIST
0017 01 MODEL SUR. TOO FAR FROM STAT. ALT.
0018 01 MISSING STATION ALTITUDE
0019 01 REPORT OVER SEA
0020 01 REPORT OVER LAND
0021 01 REDUNDANT REPORT
0022 01 TIME OUT OF RANGE
0023 01 VERTICAL POSITION OUT OF RANGE
0024 01 HORIZONTAL POSITION OUT OF RANGE
0025 01 ACTIVATED BY WHITELIST
0026 01 ACTIVATED DUE TO RDB FLAG
0027 01 REJECTED DUE TO RDB FLAG
0028 01 BAD REPORTING PRACTICE
0029 01 ALL DATA REJECTED
0030 01 NO DATA IN THE REPORT
033221 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
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0014 01 NOT DEFINED
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0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
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0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033222 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
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0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
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0016 01 NOT DEFINED
0017 01 NOT DEFINED
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0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033223 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033224 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
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0020 01 NOT DEFINED
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0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033225 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033226 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033227 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
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0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033228 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033229 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
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0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 THINNED REPORT
033230 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
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0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033232 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 BLACKLISTED DUE TO DISTANCE FROM REF. POINT
0015 01 BLACKLISTED DUE TO MODEL OROGRAPHY
0016 01 BLACKLISTED DUE TO LAND/SEA MASK
0017 01 STATION ALTITUDE BLACKLISTED
0018 01 LONGITUDE BLACKLISTED
0019 01 LATITUDE BLACKLISTED
0020 01 TIME BLACKLISTED
0021 01 DATE BLACKLISTED
0022 01 INSTRUMENT TYPE BLACKLISTED
0023 01 CODE TYPE BLACKLISTED
0024 01 STATION ID BLACKLISTED
0025 01 BLACKLISTED DUE TO FIRST GUESS DEPARTURE
0026 01 BLACKLISTED DUE TO OBSERVED VALUE
0027 01 BLACKLISTED DUE TO TYPE OF VERTICAL COORDINATE
0028 01 BLACKLISTED DUE TO PRESSURE CODE
0029 01 VARIABLE NAME BLACKLISTED
0030 01 MONTHLY MONITORING
033233 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 REPORT BLACK LISTED
0028 01 REPORT REJECTED
0029 01 REPORT PASSIVE
0030 01 REPORT ACTIVE
033234 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
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0026 01 NOT DEFINED
0027 01 DATUM BLACK LISTED
0028 01 DATUM REJECTED
0029 01 DATUM PASSIVE
0030 01 DATUM ACTIVE
033236 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 DATUM REJECTED DUE TO REJECTED REPORT
0006 01 COMBINED FLAGGING
0007 01 DATUM REJECTED DUE TO NAMELIST
0008 01 VERTICAL COORDINATE CHANGE FROM Z TO P
0009 01 VERTICAL CONSISTENCY CHECK
0010 01 LEVEL SELECTION
0011 01 MULTI LEVEL CHECK
0012 01 TOO MANY SURFACE DATA/LEVELS
0013 01 DUPLICATED DATUM/LEVEL
0014 01 NOT AN ANALYSIS VARIABLE
0015 01 REPORT OVER SEA
0016 01 REPORT OVER LAND
0017 01 REDUNDANT LEVEL
0018 01 REDUNDANT DATUM
0019 01 TOO BIG OBSERVATION ERROR
0020 01 TOO BIG DEPARTURE IN ASSIMILATION
0021 01 TOO BIG FIRST GUESS DEPARTURE
0022 01 REFERENCE LEVEL POSITION OUT OF RANGE
0023 01 VERTICAL POSITION OUT OF RANGE
0024 01 BAD REPORTING PRACTICE
0025 01 ACTIVATED BY WHITELIST
0026 01 ACTIVATED DUE TO RDB FLAG
0027 01 REJECTED DUE TO RDB FLAG
0028 01 MISSING FIRST GUESS VALUE
0029 01 MISSING OBSERVED VALUE
0030 01 MISSING VERTICAL COORDINATE
033237 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033238 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
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0029 01 NOT DEFINED
0030 01 NOT DEFINED
033239 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
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0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
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0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
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0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033240 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
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0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
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0029 01 NOT DEFINED
0030 01 NOT DEFINED
033243 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
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0018 01 NOT DEFINED
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0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033244 0030 0001 01 NOT DEFINED
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0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
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0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033245 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
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0011 01 NOT DEFINED
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0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 LAYER FORMED BY SUMMING UP
0029 01 LAYER FORMED BY THINNING UP
0030 01 NOT PREDEFINED LAYER
033246 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
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0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033247 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
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0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033248 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
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0007 01 NOT DEFINED
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0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 NOT DEFINED
0025 01 NOT DEFINED
0026 01 NOT DEFINED
0027 01 NOT DEFINED
0028 01 NOT DEFINED
0029 01 NOT DEFINED
0030 01 NOT DEFINED
033249 0030 0001 01 NOT DEFINED
0002 01 NOT DEFINED
0003 01 NOT DEFINED
0004 01 NOT DEFINED
0005 01 NOT DEFINED
0006 01 NOT DEFINED
0007 01 NOT DEFINED
0008 01 NOT DEFINED
0009 01 NOT DEFINED
0010 01 NOT DEFINED
0011 01 NOT DEFINED
0012 01 NOT DEFINED
0013 01 NOT DEFINED
0014 01 NOT DEFINED
0015 01 NOT DEFINED
0016 01 NOT DEFINED
0017 01 NOT DEFINED
0018 01 NOT DEFINED
0019 01 NOT DEFINED
0020 01 NOT DEFINED
0021 01 NOT DEFINED
0022 01 NOT DEFINED
0023 01 NOT DEFINED
0024 01 BLACKLISTED DUE TO FIRST GUESS DEPARTURE
0025 01 BLACKLISTED DUE TO OBSERVED VALUE
0026 01 BLACKLISTED DUE TO TYPE OF VERTICAL COORDINATE
0027 01 BLACKLISTED DUE TO DISTANCE FROM REFERENCE POINT
0028 01 BLACKLISTED DUE TO PRESSURE CODE
0029 01 VARIABLE BLACKLISTED
0030 01 PRESSURE BLACKLISTED
033252 0010 0000 01 Automatic quality control passed and not manually checked
0001 01 Automatic quality control passed and manually checked and passed
0002 01 Automatic quality control passed and manually checked and deleted
0003 01 Automatic quality control failed and manually not checked
0004 01 Automatic quality control failed and manually checked and failed
0005 01 Automatic quality control failed and manually checked and re-inserted
0006 01 Automatic quality control flagged data as questionable and not manually checked
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0007 02 Automatic quality control flagged data as questionable
      and manually checked and failed
0008 01 Manually checked and failed
0015 01 Missing value

033254 0019 0001 01 U DEPARTURE FROM GUESS
      0002 01 V DEPARTURE FROM GUESS
      0003 01 U & V DEPARTURE FROM GUESS
      0004 01 U ACCELERATION
      0005 01 V ACCELERATION
      0006 01 U & V ACCELERATION
      0007 01 POSSIBLE LAND FEATURE
      0008 01 U ACCELERATION AND POSSIBLE LAND FEATURE
      0009 01 V ACCELERATION AND POSSIBLE LAND FEATURE
      0010 01 U & V ACCELERATION AND POSSIBLE LAND FEATURE
      0011 01 BAD WIND GUESS
      0012 01 CORRELATION FAILURE
      0013 01 SEARCH BOX OFF EDGE OF AREA
      0014 01 TARGET BOX OFF EDGE OF AREA
      0015 01 PIXEL BRIGHTNESS OUT OF BOUNDS (NOISY LINE)
      0016 01 TARGET OUTSIDE OF LAT/LONG BOX
      0017 01 TARGET OUTSIDE OF PRESSURE MIN/MAX
      0018 01 AUTOEDITOR FLAGGED SLOW VECTOR
      0019 01 AUTOEDITOR FLAGGED VECTORS
035000 0011 0011 01 000-099 International FM Codes
      0001 01 100-199 RA I Codes
      0002 01 200-299 RA II Codes
      0003 01 300-399 RA III Codes
      0004 01 400-499 RA IV Codes
      0005 01 500-599 RA V Codes
      0006 01 600-699 RA VI Codes
      0007 01 700-799 Antarctic Codes
      0008 01 800-999 Reserved
      0009 01 1000-1022 Not used
      1023 01 Missing value
035001 0004 0000 01 Real time
      0001 01 Near-real time
      0002 01 Non-real time
      0007 01 Missing value
035030 0010 0000 01 No discrepancies
      0001 02 Non-compliance with standard and recommended practices
      and procedures including those of monitoring
      0002 01 Catalogues of meteorological bulletins not updated in a timely manner
      0003 01 Incorrect routeing directories
      0004 01 Lack of flexibility in the routeing arrangements
      0005 01 Deficiencies in the operation of GTS centres and circuits
      0006 01 Loss of data or delays in relaying data on the GTS
      0007 01 Routeing of data different from the routeing provided in the plan
      0008 01 Various malpractices
      0015 01 Missing value
035031 0020 0001 01 Sufficient and all of acceptable quality
      0002 01 Sufficient but partly of acceptable quality
      0003 01 Insufficient but all of acceptable quality
      0004 01 Insufficient and of unacceptable quality
      0005 01 Some messages not complete
      0006 01 Suspect or wrongly coded groups could not be interpreted confidently
      0007 01 Gross coding errors
      0008 01 Transmission sequential order not observed
      0009 01 Report completely garbled and thus discarded
      0010 01 Deficiencies identified and rectified
      0011 01 Deficiencies identified but not rectified
      0012 01 Deficiencies not identified
      0013 01 Measuring errors
      0014 01 Mutual inconsistency
      0015 01 Temporal inconsistency
      0016 01 Forecast error
      0017 01 Bias
      0018 01 Improve system of quality control
      0019 01 Expand training programmes
      0123 01 Missing value
035032 0010 0001 01 Data groups missing due to radio fading
      0002 01 Data groups missing due to outage of centre
      0003 01 Data groups missing due to outage of circuit
      0004 01 Non-implementation or maintenance of required RBSN density
      0005 01 Shortage of qualified staff to man stations
      0006 01 Lack of consumables
      0007 01 Instrument failure
      0008 01 Non-adherence to telecommunication procedures
      0009 01 Some observing programmes ceased
      0015 01 Missing value
035033 0012 0001 01 No deficiency
      0002 01 Observations not made regularly
      0003 01 Observations not made at right time
      0004 01 Observations made but not disseminated
      0005 01 Observations made and sent to incorrect users
      0006 01 Collection not received
      0007 01 Collection transmitted late
      0008 01 Collection not transmitted
      0009 01 Difficulties in HF propagation and selection of suitable frequency
      0010 01 Difficulties in maintenance of communication equipment at remote stations
      0011 01 No alternative arrangement for routeing meteorological observation
      0123 01 Missing value
035034 0007 0001 01 Slight improvement

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0002 01 Significant improvement
0003 01 Most significant improvement
0004 01 Steady
0005 01 Decreasing
0006 01 Efforts required to improve night-time observations
0007 01 Missing value
033035 0016 0000 01 Reserved
0001 01 Balloon burst
0002 01 Balloon forced down by icing
0003 01 Leaking or floating balloon
0004 01 Weak or fading signal
0005 01 Battery failure
0006 01 Ground equipment failure
0007 01 Signal interference
0008 01 Radiosonde failure
0009 01 Excessive missing data frames
0010 01 Reserved
0011 01 Excessive missing temperature
0012 01 Excessive missing pressure
0013 01 User terminated
0030 01 Other
0031 01 Missing value
049194 0014 0001 01 PASSED QUALITY CONTROL
0002 01 OUTSIDE TIME WINDOW
0003 01 ABOVE LAND
0004 01 OUTSIDE ENTIRE GRID
0005 01 WAVE HEIGHT OUT OF RANGE
0006 01 TOO HIGH ALONG TRACK JUMP
0007 01 TOO SHORT ALONG TRACK JUMP
0008 01 TOO HIGH ALONG TRACK VARIANCE
0009 01 OUTSIDE CONFIDENCE LIMIT
0010 01 DOUBLE OBSERVATION
0011 01 PEAKINESS ABOVE THRESHOLD
0012 01 RESERVED
0013 01 RESERVED
0014 01 RESERVED
049193 0014 0001 01 EXCELLENT (COST LESS THAN 0.1)
0002 01 GOOD (COST LESS THAN 0.5)
0003 01 QUESTIONABLE (COST LARGER THAN 0.5)
0004 01 RESULTS UNTABLE
0005 01 OBSERVED SAR SPECTRUM REJECTED
0006 01 WAM FIRST GUESS REJECTED
0007 01 SIMULATED SAR REJECTED
0008 01 NO AZIMUTH CUT-OFF ADJUSTMENT
0009 01 RESERVED
0010 01 RESERVED
0011 01 RESERVED
0012 01 RESERVED
0013 01 RESERVED
0014 01 RESERVED
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## 2.5 Bufr Table D

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## 3 Bufr Templates

### 3.1 Ecmwf observation subtypes

RDB type	RDB type number	BUFR type	RDB subtype	RDB subtype number
Surface	1	0	synop land	1
	1	0	synop land record 2	2
	1	0	synop land (auto)	3
	1	0	synop land (auto) 2	4
	1	0	soil temperatures	7
	1	0	climat synop	108
	1	0	soil temperatures USA	116
	1	0	soil temperatures	117
	1	0	metar	140
	1	1	synop ship abbreviated	9
	1	1	synop ship	11
	1	1	synop ship record 2	12
	1	1	synop ship (auto)	13
	1	1	synop ship (auto) 2	14
	1	1	synop ship reduced	19
	1	1	surface buoy	21
	1	1	surface bathy	22
	1	1	surface tesac	23
	1	1	buoy argos	27

RDB type	RDB type number	BUFR type	RDB subtype	RDB subtype number
Tovs	2	3	80 km	51
	2	3	rtovs	53
	2	3	tovs1b	54
	2	3	atovs	55
	2	3	atovs product	56
	2	3	airs	57
	2	3	avhrr	58
	2	3	500 km low level	61
	2	3	500 km water	62
	2	3	500 km high level	63
	2	3	250 km low level	71
	2	3	250 km water	72
	2	3	250 km high level	73
	2	3	trmm bt	129
	2	3	trmra rain	130
	2	3	gomos	206
Geostationay	3	5	satob section 2	82
	3	5	satob section3	83
	3	5	satob section 4	84
	3	5	satob secrion 5	85
	3	5	HR wind	86
	3	5	HR wind + qc	87
	3	5	radiances (geostat)	88
	3	5	radiences (geostat)	89
	3	5	meris	212
Wind profile	4	2	pilot	91
	4	2	pilot ship	92
	4	2	wind profiler (usa)	95
	4	2	wind profiler (Europe)	96
	4	2	wind profiler (Europe)	97

RDB type	RDB type number	BUFR type	RDB subtype	RDB subtype number
Temperature	5	2	temp	101
profile	5	2	temp ship	102
	5	2	temp drop	103
	5	2	rocob	104
	5	2	rocob ship	105
	5	2	temp mobile	106
	5	2	climat temp	107
Oceanographic	6	31	dribu/buoy	131
	6	31	bathy	132
	6	31	tesac	133
Single level	7	4	codar	141
	7	4	airep	142
	7	4	colba	143
	7	4	amdar	144
	7	4	acar	145
Satellite	12	12	uwa	121
	12	12	uwi	122
	12	12	ura	123
	12	12	uat	124
	12	12	ssmi (mapped)	126
	12	12	ssbt (ssmi brightness T)	127
	12	12	nwi (nsqat)	136
	12	12	qwi (qscat )	138
	12	12	asar	210
	12	12	ra-2	213
	12	12	aatsr	220
	12	12	jason	214
Tropical	8	7	tropical storm	31
Chemical	9	8	Surface ozone	157
	9	8	Surface ozone average	158
	9	8	Vertical sounding ozone	159
	8	8	O3 layers	170
Bogus	253	253	paob	164

## 3.2 Synop land

### RDB type 1, subtype 1

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 220
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                 0
    ORIGINATING CENTRE                     98
    UPDATE SEQUENCE NUMBER                 1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                      0
    BUFR MESSAGE SUBTYPE                   1
    VERSION NUMBER OF LOCAL TABLE         1
    YEAR                                  1
    MONTH                                  2
    DAY                                    1
    HOUR                                   10
    MINUTE                                 0
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                     0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                    52

    REPORT DATA BASE KEY

    RDB DATA TYPE                         1
    RDB DATA SUBTYPE                      1
    YEAR                                  2001
    MONTH                                  2
    DAY                                    1
    HOUR                                   10
    MINUTE                                 0
    SECOND                                 0
    LATITUDE 1                             54.83
    LONGITUDE 1                             9.50
    IDENTIFIER                             10033
    TOTAL BUFR MESSAGE LENGTH              220
    DAY (RDB INSERTION)                    1
    HOUR (RDB INSERTION)                   10
    MINUTE (RDB INSERTION)                  13
    SECOND (RDB INSERTION)                  43
    DAY (MDB ARRIVAL)                       1
    HOUR (MDB ARRIVAL)                      10
    MINUTE (MDB ARRIVAL)                     8
    SECOND (MDB ARRIVAL)                     43
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         1
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    QUALITY CONTROL % CONF                  70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)            28
    RESERVED                                0
    NUMBER OF DATA SUBSETS                  1
    FLAG (DATA TYPE/DATA COMPRESSION)       128

    DATA DESCRIPTORS (UNEXPANDED)

```

1 307005  
2 013023  
3 013013  
4 222000  
5 101049  
6 031031  
7 001031  
8 001032  
9 101049  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002001 TYPE OF STATION  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007001 HEIGHT OF STATION  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
33 020011 CLOUD AMOUNT  
34 020012 CLOUD TYPE  
35 020013 HEIGHT OF BASE OF CLOUD  
36 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
37 020011 CLOUD AMOUNT  
38 020012 CLOUD TYPE  
39 020013 HEIGHT OF BASE OF CLOUD  
40 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
41 020011 CLOUD AMOUNT  
42 020012 CLOUD TYPE  
43 020013 HEIGHT OF BASE OF CLOUD  
44 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
45 020011 CLOUD AMOUNT  
46 020012 CLOUD TYPE  
47 020013 HEIGHT OF BASE OF CLOUD  
48 013023 TOTAL PRECIPITATION PAST 24 HOURS  
49 013013 TOTAL SNOW DEPTH  
50 222000 QUALITY INFORMATION FOLLOW  
51 031031 DATA PRESENT INDICATOR  
52 031031 DATA PRESENT INDICATOR  
53 031031 DATA PRESENT INDICATOR  
54 031031 DATA PRESENT INDICATOR  
55 031031 DATA PRESENT INDICATOR  
56 031031 DATA PRESENT INDICATOR  
57 031031 DATA PRESENT INDICATOR  
58 031031 DATA PRESENT INDICATOR  
59 031031 DATA PRESENT INDICATOR  
60 031031 DATA PRESENT INDICATOR  
61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
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68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
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74 031031 DATA PRESENT INDICATOR  
75 031031 DATA PRESENT INDICATOR  
76 031031 DATA PRESENT INDICATOR  
77 031031 DATA PRESENT INDICATOR  
78 031031 DATA PRESENT INDICATOR  
79 031031 DATA PRESENT INDICATOR



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80 031031 DATA PRESENT INDICATOR
81 031031 DATA PRESENT INDICATOR
82 031031 DATA PRESENT INDICATOR
83 031031 DATA PRESENT INDICATOR
84 031031 DATA PRESENT INDICATOR
85 031031 DATA PRESENT INDICATOR
86 031031 DATA PRESENT INDICATOR
87 031031 DATA PRESENT INDICATOR
88 031031 DATA PRESENT INDICATOR
89 031031 DATA PRESENT INDICATOR
90 031031 DATA PRESENT INDICATOR
91 031031 DATA PRESENT INDICATOR
92 031031 DATA PRESENT INDICATOR
93 031031 DATA PRESENT INDICATOR
94 031031 DATA PRESENT INDICATOR
95 031031 DATA PRESENT INDICATOR
96 031031 DATA PRESENT INDICATOR
97 031031 DATA PRESENT INDICATOR
98 031031 DATA PRESENT INDICATOR
99 031031 DATA PRESENT INDICATOR
100 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
101 001032 GENERATING APPLICATION
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
106 033007 % CONFIDENCE
107 033007 % CONFIDENCE
108 033007 % CONFIDENCE
109 033007 % CONFIDENCE
110 033007 % CONFIDENCE
111 033007 % CONFIDENCE
112 033007 % CONFIDENCE
113 033007 % CONFIDENCE
114 033007 % CONFIDENCE
115 033007 % CONFIDENCE
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141 033007 % CONFIDENCE
142 033007 % CONFIDENCE
143 033007 % CONFIDENCE
144 033007 % CONFIDENCE
145 033007 % CONFIDENCE
146 033007 % CONFIDENCE
147 033007 % CONFIDENCE
148 033007 % CONFIDENCE
149 033007 % CONFIDENCE
150 033007 % CONFIDENCE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

1 WMO BLOCK NUMBE      0.1000000000E+02 NUMERIC
2 WMO STATION NUM      0.3300000000E+02 NUMERIC
3 TYPE OF STATION      0.1000000000E+01 CODE TABLE 2001
4 YEAR                 0.2001000000E+04 YEAR
5 MONTH               0.2000000000E+01 MONTH
6 DAY                 0.1000000000E+01 DAY
7 HOUR                0.1000000000E+02 HOUR
8 MINUTE              0.0000000000E+00 MINUTE
9 LATITUDE (HIGH      0.5483000000E+02 DEGREE
10 LONGITUDE (HIGH    0.9500000000E+01 DEGREE
11 HEIGHT OF STATI    0.3300000000E+02 M
12 PRESSURE           0.1021700000E+06 PA
13 PRESSURE REDUCE    0.1025900000E+06 PA
14 3 HOUR PRESSURE    0.7000000000E+02 PA
15 CHARACTERISTIC     0.2000000000E+01 CODE TABLE 10063
16 WIND DIRECTION     0.3500000000E+03 DEGREE TRUE
17 WIND SPEED AT 1    0.7000000000E+01 M/S
18 DRY BULB TEMPER    0.2740000000E+03 K

```

19	DEW POINT TEMPE	0.2725000000E+03	K		
20	RELATIVE HUMIDI	MISSING	%		
21	HORIZONTAL VISI	0.1500000000E+05	M		
22	PRESENT WEATHER	0.2000000000E+01	CODE TABLE	20003	
23	PAST WEATHER (1	0.1000000000E+01	CODE TABLE	20004	
24	PAST WEATHER (2	0.1000000000E+01	CODE TABLE	20005	
25	CLOUD COVER (TO	0.9000000000E+02	%		
26	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002	
27	CLOUD AMOUNT	0.7000000000E+01	CODE TABLE	20011	
28	HEIGHT OF BASE	0.4500000000E+03	M		
29	CLOUD TYPE	0.3500000000E+02	CODE TABLE	20012	
30	CLOUD TYPE	0.6100000000E+02	CODE TABLE	20012	
31	CLOUD TYPE	0.6000000000E+02	CODE TABLE	20012	
32	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002	
33	CLOUD AMOUNT	0.2000000000E+01	CODE TABLE	20011	
34	CLOUD TYPE	0.7000000000E+01	CODE TABLE	20012	
35	HEIGHT OF BASE	0.3200000000E+03	M		
36	VERTICAL SIGNIF	0.2000000000E+01	CODE TABLE	8002	
37	CLOUD AMOUNT	0.7000000000E+01	CODE TABLE	20011	
38	CLOUD TYPE	0.6000000000E+01	CODE TABLE	20012	
39	HEIGHT OF BASE	0.4100000000E+03	M		
40	VERTICAL SIGNIF	0.3000000000E+01	CODE TABLE	8002	
41	CLOUD AMOUNT	MISSING	CODE TABLE	20011	
42	CLOUD TYPE	MISSING	CODE TABLE	20012	
43	HEIGHT OF BASE	MISSING	M		
44	VERTICAL SIGNIF	MISSING	CODE TABLE	8002	
45	CLOUD AMOUNT	MISSING	CODE TABLE	20011	
46	CLOUD TYPE	MISSING	CODE TABLE	20012	
47	HEIGHT OF BASE	MISSING	M		
48	TOTAL PRECIPITA	MISSING	KG/M**2		
49	TOTAL SNOW DEPT	MISSING	M		
50	QUALITY INFORMA	0.0000000000E+00			
51	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
52	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
53	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
54	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
55	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
56	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
57	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
58	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
59	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
60	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
61	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
62	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
63	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
64	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
65	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
66	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
70	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
71	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
72	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
73	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
74	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
75	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
76	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
77	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
78	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
79	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
80	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
81	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
82	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
83	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
84	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
85	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
86	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
87	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
88	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
89	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
90	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
91	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
92	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
93	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
94	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
95	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
96	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
97	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
98	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
99	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
100	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031	
101	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032	
102	% CONFIDENCE	0.7000000000E+02	NUMERIC		
103	% CONFIDENCE	0.7000000000E+02	NUMERIC		
104	% CONFIDENCE	0.7000000000E+02	NUMERIC		
105	% CONFIDENCE	0.7000000000E+02	NUMERIC		
106	% CONFIDENCE	0.7000000000E+02	NUMERIC		
107	% CONFIDENCE	0.7000000000E+02	NUMERIC		
108	% CONFIDENCE	0.7000000000E+02	NUMERIC		
109	% CONFIDENCE	0.7000000000E+02	NUMERIC		
110	% CONFIDENCE	0.7000000000E+02	NUMERIC		
111	% CONFIDENCE	0.7000000000E+02	NUMERIC		

```
112 % CONFIDENCE      0.7500000000E+02 NUMERIC
113 % CONFIDENCE      0.7400000000E+02 NUMERIC
114 % CONFIDENCE      0.7400000000E+02 NUMERIC
115 % CONFIDENCE      0.7700000000E+02 NUMERIC
116 % CONFIDENCE      0.7900000000E+02 NUMERIC
117 % CONFIDENCE      0.7000000000E+02 NUMERIC
118 % CONFIDENCE      0.7000000000E+02 NUMERIC
119 % CONFIDENCE      0.8000000000E+02 NUMERIC
120 % CONFIDENCE      0.7700000000E+02 NUMERIC
121 % CONFIDENCE      0.7000000000E+02 NUMERIC
122 % CONFIDENCE      0.8200000000E+02 NUMERIC
123 % CONFIDENCE      0.8500000000E+02 NUMERIC
124 % CONFIDENCE      0.7000000000E+02 NUMERIC
125 % CONFIDENCE      0.7000000000E+02 NUMERIC
126 % CONFIDENCE      0.8500000000E+02 NUMERIC
127 % CONFIDENCE      0.7000000000E+02 NUMERIC
128 % CONFIDENCE      0.8500000000E+02 NUMERIC
129 % CONFIDENCE      0.8400000000E+02 NUMERIC
130 % CONFIDENCE      0.8500000000E+02 NUMERIC
131 % CONFIDENCE      0.8500000000E+02 NUMERIC
132 % CONFIDENCE      0.8500000000E+02 NUMERIC
133 % CONFIDENCE      0.7000000000E+02 NUMERIC
134 % CONFIDENCE      0.7000000000E+02 NUMERIC
135 % CONFIDENCE      0.7000000000E+02 NUMERIC
136 % CONFIDENCE      0.7000000000E+02 NUMERIC
137 % CONFIDENCE      0.7000000000E+02 NUMERIC
138 % CONFIDENCE      0.7000000000E+02 NUMERIC
139 % CONFIDENCE      0.7000000000E+02 NUMERIC
140 % CONFIDENCE      0.7000000000E+02 NUMERIC
141 % CONFIDENCE      0.7000000000E+02 NUMERIC
142 % CONFIDENCE      0.7000000000E+02 NUMERIC
143 % CONFIDENCE      0.7000000000E+02 NUMERIC
144 % CONFIDENCE      0.7000000000E+02 NUMERIC
145 % CONFIDENCE      0.7000000000E+02 NUMERIC
146 % CONFIDENCE      0.7000000000E+02 NUMERIC
147 % CONFIDENCE      0.7000000000E+02 NUMERIC
148 % CONFIDENCE      0.7000000000E+02 NUMERIC
149 % CONFIDENCE      0.7000000000E+02 NUMERIC
150 % CONFIDENCE      0.7000000000E+02 NUMERIC
```

### 3.3 Synop land second record

#### RDB type 1, subtype 2

```
ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

LENGTH OF SECTION 0 (BYTES)      8
TOTAL LENGTH OF BUFR MESSAGE (BYTES) 212
BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

LENGTH OF SECTION 1 (BYTES)      18
BUFR EDITION NUMBER              3
ORIGINATING SUB-CENTRE           0
ORIGINATING CENTRE               98
UPDATE SEQUENCE NUMBER           1
FLAG (PRESENCE OF SECTION 2)     128
BUFR MESSAGE TYPE                0
BUFR MESSAGE SUBTYPE             2
VERSION NUMBER OF LOCAL TABLE   1
YEAR                             4
MONTH                           1
DAY                             7
HOUR                            0
MINUTE                          0
VERSION NUMBER OF MASTER TABLE  6
BUFR MASTER TABLE              0
1
    BUFR SECTION 2

LENGTH OF SECTION 2              52

REPORT DATA BASE KEY

RDB DATA TYPE                   1
RDB DATA SUBTYPE                2
YEAR                             2004
MONTH                           1
DAY                             7
HOUR                            0
MINUTE                          0
SECOND                          0
LATITUDE 1                      14.05
LONGITUDE 1                     -87.22
IDENTIFIER                       78720
TOTAL BUFR MESSAGE LENGTH        212
DAY (RDB INSERTION)              7
HOUR (RDB INSERTION)             0
MINUTE (RDB INSERTION)           31
SECOND (RDB INSERTION)           35
DAY (MDB ARRIVAL)                7
HOUR (MDB ARRIVAL)               0
MINUTE (MDB ARRIVAL)             28
SECOND (MDB ARRIVAL)             39
CORRECTION NUMBER                0
PART OF MESSAGE                  1
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

LENGTH OF SECTION 3 (BYTES)      56
RESERVED                          0
NUMBER OF DATA SUBSETS           1
FLAG (DATA TYPE/DATA COMPRESSION) 128

DATA DESCRIPTORS (UNEXPANDED)
```

1 301031  
2 012013  
3 012017  
4 012014  
5 013031  
6 014015  
7 014031  
8 020062  
9 020192  
10 020192  
11 020192  
12 020192  
13 011233  
14 011041  
15 011230  
16 011231  
17 011232  
18 222000  
19 101027  
20 031031  
21 001031  
22 001032  
23 101027  
24 033007

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002001 TYPE OF STATION  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007001 HEIGHT OF STATION  
12 012013 GROUND MINIMUM TEMPERATURE PAST 12 HOURS  
13 012017 MINIMUM TEMPERATURE AT 2M, PAST 24 HOURS  
14 012014 MAXIMUM TEMPERATURE AT 2M, PAST 12 HOURS  
15 013031 EVAPOTRANSPIRATION  
16 014015 NET RADIATION INTEGRATED OVER 24HOURS  
17 014031 TOTAL SUNSHINE  
18 020062 STATE OF GROUND (WITH OR WITHOUTSNOW)  
19 020192 SPECIAL PHENOMENA  
20 020192 SPECIAL PHENOMENA  
21 020192 SPECIAL PHENOMENA  
22 020192 SPECIAL PHENOMENA  
23 011233 HIGHEST GUST DURING THE 10 MINUTE PERIOD PRECEDING OBSERVATION  
24 011041 MAXIMUM WIND SPEED (GUSTS)  
25 011230 MAXIMUM MEAN WIND SPEED  
26 011231 MEAN WIND SPEED  
27 011232 MINIMUM MEAN WIND SPEED  
28 222000 QUALITY INFORMATION FOLLOW  
29 031031 DATA PRESENT INDICATOR  
30 031031 DATA PRESENT INDICATOR  
31 031031 DATA PRESENT INDICATOR  
32 031031 DATA PRESENT INDICATOR  
33 031031 DATA PRESENT INDICATOR  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
50 031031 DATA PRESENT INDICATOR  
51 031031 DATA PRESENT INDICATOR  
52 031031 DATA PRESENT INDICATOR  
53 031031 DATA PRESENT INDICATOR  
54 031031 DATA PRESENT INDICATOR  
55 031031 DATA PRESENT INDICATOR  
56 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
57 001032 GENERATING APPLICATION  
58 033007 % CONFIDENCE  
59 033007 % CONFIDENCE  
60 033007 % CONFIDENCE  
61 033007 % CONFIDENCE  
62 033007 % CONFIDENCE  
63 033007 % CONFIDENCE  
64 033007 % CONFIDENCE  
65 033007 % CONFIDENCE

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66 033007 % CONFIDENCE
67 033007 % CONFIDENCE
68 033007 % CONFIDENCE
69 033007 % CONFIDENCE
70 033007 % CONFIDENCE
71 033007 % CONFIDENCE
72 033007 % CONFIDENCE
73 033007 % CONFIDENCE
74 033007 % CONFIDENCE
75 033007 % CONFIDENCE
76 033007 % CONFIDENCE
77 033007 % CONFIDENCE
78 033007 % CONFIDENCE
79 033007 % CONFIDENCE
80 033007 % CONFIDENCE
81 033007 % CONFIDENCE
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 WMO BLOCK NUMBE      .7800000000E+02 NUMERIC
2 WMO STATION NUM      .7200000000E+03 NUMERIC
3 TYPE OF STATION      .1000000000E+01 CODE TABLE  2001
4 YEAR                 .2004000000E+04 YEAR
5 MONTH                .1000000000E+01 MONTH
6 DAY                  .7000000000E+01 DAY
7 HOUR                 .0000000000E+00 HOUR
8 MINUTE                .0000000000E+00 MINUTE
9 LATITUDE (HIGH)      .1405000019E+02 DEGREE
10 LONGITUDE (HIGH)    -.8722000122E+02 DEGREE
11 HEIGHT OF STATI     .1007000000E+04 M
12 GROUND MINIMUM      MISSING K
13 MINIMUM TEMPERA     .2903999939E+03 K
14 MAXIMUM TEMPERA     .3007000122E+03 K
15 EVAPOTRANSPIRAT     MISSING KG/M**2
16 NET RADIATION I     MISSING J/M**2
17 TOTAL SUNSHINE      MISSING MINUTE
18 STATE OF GROUND      .0000000000E+00 CODE TABLE  20062
19 SPECIAL PHENOME     MISSING CODE TABLE  20192
20 SPECIAL PHENOME     MISSING CODE TABLE  20192
21 SPECIAL PHENOME     MISSING CODE TABLE  20192
22 SPECIAL PHENOME     MISSING CODE TABLE  20192
23 HIGHEST GUST DU     MISSING M/S
24 MAXIMUM WIND SP     MISSING M/S
25 MAXIMUM MEAN WI     MISSING M/S
26 MEAN WIND SPEED     MISSING M/S
27 MINIMUM MEAN WI     MISSING M/S
28 QUALITY INFORMA     .0000000000E+00
29 DATA PRESENT IN    .0000000000E+00 NUMERIC
30 DATA PRESENT IN    .0000000000E+00 NUMERIC
31 DATA PRESENT IN    .0000000000E+00 NUMERIC
32 DATA PRESENT IN    .0000000000E+00 NUMERIC
33 DATA PRESENT IN    .0000000000E+00 NUMERIC
34 DATA PRESENT IN    .0000000000E+00 NUMERIC
35 DATA PRESENT IN    .0000000000E+00 NUMERIC
36 DATA PRESENT IN    .0000000000E+00 NUMERIC
37 DATA PRESENT IN    .0000000000E+00 NUMERIC
38 DATA PRESENT IN    .0000000000E+00 NUMERIC
39 DATA PRESENT IN    .0000000000E+00 NUMERIC
40 DATA PRESENT IN    .0000000000E+00 NUMERIC
41 DATA PRESENT IN    .0000000000E+00 NUMERIC
42 DATA PRESENT IN    .0000000000E+00 NUMERIC
43 DATA PRESENT IN    .0000000000E+00 NUMERIC
44 DATA PRESENT IN    .0000000000E+00 NUMERIC
45 DATA PRESENT IN    .0000000000E+00 NUMERIC
46 DATA PRESENT IN    .0000000000E+00 NUMERIC
47 DATA PRESENT IN    .0000000000E+00 NUMERIC
48 DATA PRESENT IN    .0000000000E+00 NUMERIC
49 DATA PRESENT IN    .0000000000E+00 NUMERIC
50 DATA PRESENT IN    .0000000000E+00 NUMERIC
51 DATA PRESENT IN    .0000000000E+00 NUMERIC
52 DATA PRESENT IN    .0000000000E+00 NUMERIC
53 DATA PRESENT IN    .0000000000E+00 NUMERIC
54 DATA PRESENT IN    .0000000000E+00 NUMERIC
55 DATA PRESENT IN    .0000000000E+00 NUMERIC
56 IDENTIFICATION      .9800000000E+02 CODE TABLE  1031
57 GENERATING APPL     .1000000000E+01 CODE TABLE  1032
58 % CONFIDENCE         .7000000000E+02 NUMERIC
59 % CONFIDENCE         .7000000000E+02 NUMERIC
60 % CONFIDENCE         .7000000000E+02 NUMERIC
61 % CONFIDENCE         .7000000000E+02 NUMERIC
62 % CONFIDENCE         .7000000000E+02 NUMERIC
63 % CONFIDENCE         .7000000000E+02 NUMERIC
64 % CONFIDENCE         .7000000000E+02 NUMERIC
65 % CONFIDENCE         .7000000000E+02 NUMERIC
66 % CONFIDENCE         .7000000000E+02 NUMERIC
67 % CONFIDENCE         .7000000000E+02 NUMERIC
68 % CONFIDENCE         .7000000000E+02 NUMERIC
69 % CONFIDENCE         .7000000000E+02 NUMERIC
70 % CONFIDENCE         .7000000000E+02 NUMERIC
```

```
71 % CONFIDENCE      .7000000000E+02  NUMERIC
72 % CONFIDENCE      .7000000000E+02  NUMERIC
73 % CONFIDENCE      .7000000000E+02  NUMERIC
74 % CONFIDENCE      .7000000000E+02  NUMERIC
75 % CONFIDENCE      .7000000000E+02  NUMERIC
76 % CONFIDENCE      .7000000000E+02  NUMERIC
77 % CONFIDENCE      .7000000000E+02  NUMERIC
78 % CONFIDENCE      .7000000000E+02  NUMERIC
79 % CONFIDENCE      .7000000000E+02  NUMERIC
80 % CONFIDENCE      .7000000000E+02  NUMERIC
81 % CONFIDENCE      .7000000000E+02  NUMERIC
82 % CONFIDENCE      .7000000000E+02  NUMERIC
83 % CONFIDENCE      .7000000000E+02  NUMERIC
84 % CONFIDENCE      .7000000000E+02  NUMERIC
```

### 3.4 Synop land (auto)

RDB type 1, subtype 3

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 220
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 0
    BUFR MESSAGE SUBTYPE              3
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               1
    HOUR                             10
    MINUTE                            0
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    1
    RDB DATA SUBTYPE                 3
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                             10
    MINUTE                            0
    SECOND                            0
    LATITUDE 1                        46.87
    LONGITUDE 1                       9.53
    IDENTIFIER                        06786
    TOTAL BUFR MESSAGE LENGTH         220
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               10
    MINUTE (RDB INSERTION)              3
    SECOND (RDB INSERTION)              31
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                 9
    MINUTE (MDB ARRIVAL)                59
    SECOND (MDB ARRIVAL)                19
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)        28
    RESERVED                           0
    NUMBER OF DATA SUBSETS             1
    FLAG (DATA TYPE/DATA COMPRESSION)  128

    DATA DESCRIPTORS (UNEXPANDED)

    1 307005
    2 013023
    3 013013
```



```

4 222000
5 101049
6 031031
7 001031
8 001032
9 101049
10 033007

```

## DATA DESCRIPTORS (EXPANDED)

```

1 001001 WMO BLOCK NUMBER
2 001002 WMO STATION NUMBER
3 002001 TYPE OF STATION
4 004001 YEAR
5 004002 MONTH
6 004003 DAY
7 004004 HOUR
8 004005 MINUTE
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 007001 HEIGHT OF STATION
12 010004 PRESSURE
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL
14 010061 3 HOUR PRESSURE CHANGE
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY
16 011011 WIND DIRECTION AT 10 M
17 011012 WIND SPEED AT 10 M
18 012004 DRY BULB TEMPERATURE AT 2M
19 012006 DEW POINT TEMPERATURE AT 2M
20 013003 RELATIVE HUMIDITY
21 020001 HORIZONTAL VISIBILITY
22 020003 PRESENT WEATHER
23 020004 PAST WEATHER (1)
24 020005 PAST WEATHER (2)
25 020010 CLOUD COVER (TOTAL)
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
27 020011 CLOUD AMOUNT
28 020013 HEIGHT OF BASE OF CLOUD
29 020012 CLOUD TYPE
30 020012 CLOUD TYPE
31 020012 CLOUD TYPE
32 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
33 020011 CLOUD AMOUNT
34 020012 CLOUD TYPE
35 020013 HEIGHT OF BASE OF CLOUD
36 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
37 020011 CLOUD AMOUNT
38 020012 CLOUD TYPE
39 020013 HEIGHT OF BASE OF CLOUD
40 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
41 020011 CLOUD AMOUNT
42 020012 CLOUD TYPE
43 020013 HEIGHT OF BASE OF CLOUD
44 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
45 020011 CLOUD AMOUNT
46 020012 CLOUD TYPE
47 020013 HEIGHT OF BASE OF CLOUD
48 013023 TOTAL PRECIPITATION PAST 24 HOURS
49 013013 TOTAL SNOW DEPTH
50 222000 QUALITY INFORMATION FOLLOW
51 031031 DATA PRESENT INDICATOR
52 031031 DATA PRESENT INDICATOR
53 031031 DATA PRESENT INDICATOR
54 031031 DATA PRESENT INDICATOR
55 031031 DATA PRESENT INDICATOR
56 031031 DATA PRESENT INDICATOR
57 031031 DATA PRESENT INDICATOR
58 031031 DATA PRESENT INDICATOR
59 031031 DATA PRESENT INDICATOR
60 031031 DATA PRESENT INDICATOR
61 031031 DATA PRESENT INDICATOR
62 031031 DATA PRESENT INDICATOR
63 031031 DATA PRESENT INDICATOR
64 031031 DATA PRESENT INDICATOR
65 031031 DATA PRESENT INDICATOR
66 031031 DATA PRESENT INDICATOR
67 031031 DATA PRESENT INDICATOR
68 031031 DATA PRESENT INDICATOR
69 031031 DATA PRESENT INDICATOR
70 031031 DATA PRESENT INDICATOR
71 031031 DATA PRESENT INDICATOR
72 031031 DATA PRESENT INDICATOR
73 031031 DATA PRESENT INDICATOR
74 031031 DATA PRESENT INDICATOR
75 031031 DATA PRESENT INDICATOR
76 031031 DATA PRESENT INDICATOR
77 031031 DATA PRESENT INDICATOR
78 031031 DATA PRESENT INDICATOR
79 031031 DATA PRESENT INDICATOR
80 031031 DATA PRESENT INDICATOR
81 031031 DATA PRESENT INDICATOR
82 031031 DATA PRESENT INDICATOR

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```
83 031031 DATA PRESENT INDICATOR
84 031031 DATA PRESENT INDICATOR
85 031031 DATA PRESENT INDICATOR
86 031031 DATA PRESENT INDICATOR
87 031031 DATA PRESENT INDICATOR
88 031031 DATA PRESENT INDICATOR
89 031031 DATA PRESENT INDICATOR
90 031031 DATA PRESENT INDICATOR
91 031031 DATA PRESENT INDICATOR
92 031031 DATA PRESENT INDICATOR
93 031031 DATA PRESENT INDICATOR
94 031031 DATA PRESENT INDICATOR
95 031031 DATA PRESENT INDICATOR
96 031031 DATA PRESENT INDICATOR
97 031031 DATA PRESENT INDICATOR
98 031031 DATA PRESENT INDICATOR
99 031031 DATA PRESENT INDICATOR
100 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
101 001032 GENERATING APPLICATION
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
106 033007 % CONFIDENCE
107 033007 % CONFIDENCE
108 033007 % CONFIDENCE
109 033007 % CONFIDENCE
110 033007 % CONFIDENCE
111 033007 % CONFIDENCE
112 033007 % CONFIDENCE
113 033007 % CONFIDENCE
114 033007 % CONFIDENCE
115 033007 % CONFIDENCE
116 033007 % CONFIDENCE
117 033007 % CONFIDENCE
118 033007 % CONFIDENCE
119 033007 % CONFIDENCE
120 033007 % CONFIDENCE
121 033007 % CONFIDENCE
122 033007 % CONFIDENCE
123 033007 % CONFIDENCE
124 033007 % CONFIDENCE
125 033007 % CONFIDENCE
126 033007 % CONFIDENCE
127 033007 % CONFIDENCE
128 033007 % CONFIDENCE
129 033007 % CONFIDENCE
130 033007 % CONFIDENCE
131 033007 % CONFIDENCE
132 033007 % CONFIDENCE
133 033007 % CONFIDENCE
134 033007 % CONFIDENCE
135 033007 % CONFIDENCE
136 033007 % CONFIDENCE
137 033007 % CONFIDENCE
138 033007 % CONFIDENCE
139 033007 % CONFIDENCE
140 033007 % CONFIDENCE
141 033007 % CONFIDENCE
142 033007 % CONFIDENCE
143 033007 % CONFIDENCE
144 033007 % CONFIDENCE
145 033007 % CONFIDENCE
146 033007 % CONFIDENCE
147 033007 % CONFIDENCE
148 033007 % CONFIDENCE
149 033007 % CONFIDENCE
150 033007 % CONFIDENCE
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 WMO BLOCK NUMBE      0.6000000000E+01 NUMERIC
2 WMO STATION NUM      0.7860000000E+03 NUMERIC
3 TYPE OF STATION      0.0000000000E+00 CODE TABLE 2001
4 YEAR                 0.2001000000E+04 YEAR
5 MONTH                0.2000000000E+01 MONTH
6 DAY                  0.1000000000E+01 DAY
7 HOUR                 0.1000000000E+02 HOUR
8 MINUTE               0.0000000000E+00 MINUTE
9 LATITUDE (HIGH)      0.4687000000E+02 DEGREE
10 LONGITUDE (HIGH)    0.9530000000E+01 DEGREE
11 HEIGHT OF STATI     0.5560000000E+03 M
12 PRESSURE             0.9571000000E+05 PA
13 PRESSURE REDUCE     0.1025500000E+06 PA
14 3 HOUR PRESSURE     0.1300000000E+03 PA
15 CHARACTERISTIC       0.2000000000E+01 CODE TABLE 10063
16 WIND DIRECTION       0.4000000000E+02 DEGREE TRUE
17 WIND SPEED AT 1      0.5000000000E+01 M/S
18 DRY BULB TEMPER      0.2724000000E+03 K
19 DEW POINT TEMPE     0.2661000000E+03 K
20 RELATIVE HUMIDI      MISSING %
21 HORIZONTAL VISI      MISSING M
```

22	PRESENT WEATHER	MISSING	CODE TABLE	20003
23	PAST WEATHER (1	MISSING	CODE TABLE	20004
24	PAST WEATHER (2	MISSING	CODE TABLE	20005
25	CLOUD COVER (TO	MISSING	%	
26	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002
27	CLOUD AMOUNT	MISSING	CODE TABLE	20011
28	HEIGHT OF BASE	MISSING	M	
29	CLOUD TYPE	0.6200000000E+02	CODE TABLE	20012
30	CLOUD TYPE	0.6100000000E+02	CODE TABLE	20012
31	CLOUD TYPE	0.6000000000E+02	CODE TABLE	20012
32	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002
33	CLOUD AMOUNT	MISSING	CODE TABLE	20011
34	CLOUD TYPE	MISSING	CODE TABLE	20012
35	HEIGHT OF BASE	MISSING	M	
36	VERTICAL SIGNIF	0.2000000000E+01	CODE TABLE	8002
37	CLOUD AMOUNT	MISSING	CODE TABLE	20011
38	CLOUD TYPE	MISSING	CODE TABLE	20012
39	HEIGHT OF BASE	MISSING	M	
40	VERTICAL SIGNIF	0.3000000000E+01	CODE TABLE	8002
41	CLOUD AMOUNT	MISSING	CODE TABLE	20011
42	CLOUD TYPE	MISSING	CODE TABLE	20012
43	HEIGHT OF BASE	MISSING	M	
44	VERTICAL SIGNIF	MISSING	CODE TABLE	8002
45	CLOUD AMOUNT	MISSING	CODE TABLE	20011
46	CLOUD TYPE	MISSING	CODE TABLE	20012
47	HEIGHT OF BASE	MISSING	M	
48	TOTAL PRECIPITA	MISSING	KG/M**2	
49	TOTAL SNOW DEPT	MISSING	M	
50	QUALITY INFORMA	0.0000000000E+00		
51	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
52	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
53	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
54	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
55	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
56	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
57	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
58	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
59	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
60	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
61	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
62	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
63	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
64	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
65	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
66	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
71	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
72	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
73	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
74	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
75	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
76	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
77	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
78	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
79	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
80	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
81	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
82	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
83	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
84	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
85	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
86	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
87	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
88	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
89	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
90	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
91	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
92	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
93	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
94	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
95	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
96	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
97	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
98	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
99	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
100	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
101	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
102	% CONFIDENCE	0.7000000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	
106	% CONFIDENCE	0.7000000000E+02	NUMERIC	
107	% CONFIDENCE	0.7000000000E+02	NUMERIC	
108	% CONFIDENCE	0.7000000000E+02	NUMERIC	
109	% CONFIDENCE	0.7000000000E+02	NUMERIC	
110	% CONFIDENCE	0.7000000000E+02	NUMERIC	
111	% CONFIDENCE	0.7000000000E+02	NUMERIC	
112	% CONFIDENCE	0.7500000000E+02	NUMERIC	
113	% CONFIDENCE	0.7400000000E+02	NUMERIC	
114	% CONFIDENCE	0.7400000000E+02	NUMERIC	

```
115 % CONFIDENCE      0.7700000000E+02  NUMERIC
116 % CONFIDENCE      0.7900000000E+02  NUMERIC
117 % CONFIDENCE      0.7000000000E+02  NUMERIC
118 % CONFIDENCE      0.7000000000E+02  NUMERIC
119 % CONFIDENCE      0.7700000000E+02  NUMERIC
120 % CONFIDENCE      0.7400000000E+02  NUMERIC
121 % CONFIDENCE      0.7000000000E+02  NUMERIC
122 % CONFIDENCE      0.7000000000E+02  NUMERIC
123 % CONFIDENCE      0.7000000000E+02  NUMERIC
124 % CONFIDENCE      0.7000000000E+02  NUMERIC
125 % CONFIDENCE      0.7000000000E+02  NUMERIC
126 % CONFIDENCE      0.7000000000E+02  NUMERIC
127 % CONFIDENCE      0.7000000000E+02  NUMERIC
128 % CONFIDENCE      0.7000000000E+02  NUMERIC
129 % CONFIDENCE      0.7000000000E+02  NUMERIC
130 % CONFIDENCE      0.7500000000E+02  NUMERIC
131 % CONFIDENCE      0.7900000000E+02  NUMERIC
132 % CONFIDENCE      0.7900000000E+02  NUMERIC
133 % CONFIDENCE      0.7000000000E+02  NUMERIC
134 % CONFIDENCE      0.7000000000E+02  NUMERIC
135 % CONFIDENCE      0.7000000000E+02  NUMERIC
136 % CONFIDENCE      0.7000000000E+02  NUMERIC
137 % CONFIDENCE      0.7000000000E+02  NUMERIC
138 % CONFIDENCE      0.7000000000E+02  NUMERIC
139 % CONFIDENCE      0.7000000000E+02  NUMERIC
140 % CONFIDENCE      0.7000000000E+02  NUMERIC
141 % CONFIDENCE      0.7000000000E+02  NUMERIC
142 % CONFIDENCE      0.7000000000E+02  NUMERIC
143 % CONFIDENCE      0.7000000000E+02  NUMERIC
144 % CONFIDENCE      0.7000000000E+02  NUMERIC
145 % CONFIDENCE      0.7000000000E+02  NUMERIC
146 % CONFIDENCE      0.7000000000E+02  NUMERIC
147 % CONFIDENCE      0.7000000000E+02  NUMERIC
148 % CONFIDENCE      0.7000000000E+02  NUMERIC
149 % CONFIDENCE      0.7000000000E+02  NUMERIC
150 % CONFIDENCE      0.7000000000E+02  NUMERIC
```

## 3.5 Synop land auto second record

RDB type 1, subtype 4

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 212
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                0
    BUFR MESSAGE SUBTYPE             4
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             4
    MONTH                            1
    DAY                              7
    HOUR                             0
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE              0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                 4
    YEAR                             2004
    MONTH                            1
    DAY                              7
    HOUR                             0
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       -62.22
    LONGITUDE 1                      -58.97
    IDENTIFIER                        89058
    TOTAL BUFR MESSAGE LENGTH        212
    DAY (RDB INSERTION)              7
    HOUR (RDB INSERTION)             0
    MINUTE (RDB INSERTION)           36
    SECOND (RDB INSERTION)           39
    DAY (MDB ARRIVAL)                7
    HOUR (MDB ARRIVAL)              0
    MINUTE (MDB ARRIVAL)             34
    SECOND (MDB ARRIVAL)             18
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      56
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301031
    2 012013
    3 012017

```

4 012016  
5 013031  
6 014015  
7 014031  
8 020062  
9 020192  
10 020192  
11 020192  
12 020192  
13 011233  
14 011041  
15 011230  
16 011231  
17 011232  
18 222000  
19 101027  
20 031031  
21 001031  
22 001032  
23 101027  
24 033007

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002001 TYPE OF STATION  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007001 HEIGHT OF STATION  
12 012013 GROUND MINIMUM TEMPERATURE PAST 12 HOURS  
13 012017 MINIMUM TEMPERATURE AT 2M, PAST 24 HOURS  
14 012016 MAXIMUM TEMPERATURE AT 2M, PAST 24 HOURS  
15 013031 EVAPOTRANSPIRATION  
16 014015 NET RADIATION INTEGRATED OVER 24HOURS  
17 014031 TOTAL SUNSHINE  
18 020062 STATE OF GROUND (WITH OR WITHOUTSNOW)  
19 020192 SPECIAL PHENOMENA  
20 020192 SPECIAL PHENOMENA  
21 020192 SPECIAL PHENOMENA  
22 020192 SPECIAL PHENOMENA  
23 011233 HIGHEST GUST DURING THE 10 MINUTE PERIOD PRECEDING OBSERVATION  
24 011041 MAXIMUM WIND SPEED (GUSTS)  
25 011230 MAXIMUM MEAN WIND SPEED  
26 011231 MEAN WIND SPEED  
27 011232 MINIMUM MEAN WIND SPEED  
28 222000 QUALITY INFORMATION FOLLOW  
29 031031 DATA PRESENT INDICATOR  
30 031031 DATA PRESENT INDICATOR  
31 031031 DATA PRESENT INDICATOR  
32 031031 DATA PRESENT INDICATOR  
33 031031 DATA PRESENT INDICATOR  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
50 031031 DATA PRESENT INDICATOR  
51 031031 DATA PRESENT INDICATOR  
52 031031 DATA PRESENT INDICATOR  
53 031031 DATA PRESENT INDICATOR  
54 031031 DATA PRESENT INDICATOR  
55 031031 DATA PRESENT INDICATOR  
56 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
57 001032 GENERATING APPLICATION  
58 033007 % CONFIDENCE  
59 033007 % CONFIDENCE  
60 033007 % CONFIDENCE  
61 033007 % CONFIDENCE  
62 033007 % CONFIDENCE  
63 033007 % CONFIDENCE  
64 033007 % CONFIDENCE  
65 033007 % CONFIDENCE  
66 033007 % CONFIDENCE  
67 033007 % CONFIDENCE  
68 033007 % CONFIDENCE

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69 033007 % CONFIDENCE
70 033007 % CONFIDENCE
71 033007 % CONFIDENCE
72 033007 % CONFIDENCE
73 033007 % CONFIDENCE
74 033007 % CONFIDENCE
75 033007 % CONFIDENCE
76 033007 % CONFIDENCE
77 033007 % CONFIDENCE
78 033007 % CONFIDENCE
79 033007 % CONFIDENCE
80 033007 % CONFIDENCE
81 033007 % CONFIDENCE
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

1 WMO BLOCK NUMBE      .8900000000E+02 NUMERIC
2 WMO STATION NUM      .5800000000E+02 NUMERIC
3 TYPE OF STATION      .0000000000E+00 CODE TABLE 2001
4 YEAR                .2004000000E+04 YEAR
5 MONTH              .1000000000E+01 MONTH
6 DAY                .7000000000E+01 DAY
7 HOUR              .0000000000E+00 HOUR
8 MINUTE            .0000000000E+00 MINUTE
9 LATITUDE (HIGH)    -.6222000122E+02 DEGREE
10 LONGITUDE (HIGH)  -.5897000122E+02 DEGREE
11 HEIGHT OF STATI   .1000000000E+02 M
12 GROUND MINIMUM      MISSING K
13 MINIMUM TEMPERA     MISSING K
14 MAXIMUM TEMPERA     MISSING K
15 EVAPOTRANSPIRAT     MISSING KG/M**2
16 NET RADIATION I     MISSING J/M**2
17 TOTAL SUNSHINE      MISSING MINUTE
18 STATE OF GROUND     MISSING CODE TABLE 20062
19 SPECIAL PHENOME     MISSING CODE TABLE 20192
20 SPECIAL PHENOME     MISSING CODE TABLE 20192
21 SPECIAL PHENOME     MISSING CODE TABLE 20192
22 SPECIAL PHENOME     MISSING CODE TABLE 20192
23 HIGHEST GUST DU     MISSING M/S
24 MAXIMUM WIND SP     MISSING M/S
25 MAXIMUM MEAN WI     MISSING M/S
26 MEAN WIND SPEED     MISSING M/S
27 MINIMUM MEAN WI     MISSING M/S
28 QUALITY INFORMA     .0000000000E+00
29 DATA PRESENT IN    .0000000000E+00 NUMERIC
30 DATA PRESENT IN    .0000000000E+00 NUMERIC
31 DATA PRESENT IN    .0000000000E+00 NUMERIC
32 DATA PRESENT IN    .0000000000E+00 NUMERIC
33 DATA PRESENT IN    .0000000000E+00 NUMERIC
34 DATA PRESENT IN    .0000000000E+00 NUMERIC
35 DATA PRESENT IN    .0000000000E+00 NUMERIC
36 DATA PRESENT IN    .0000000000E+00 NUMERIC
37 DATA PRESENT IN    .0000000000E+00 NUMERIC
38 DATA PRESENT IN    .0000000000E+00 NUMERIC
39 DATA PRESENT IN    .0000000000E+00 NUMERIC
40 DATA PRESENT IN    .0000000000E+00 NUMERIC
41 DATA PRESENT IN    .0000000000E+00 NUMERIC
42 DATA PRESENT IN    .0000000000E+00 NUMERIC
43 DATA PRESENT IN    .0000000000E+00 NUMERIC
44 DATA PRESENT IN    .0000000000E+00 NUMERIC
45 DATA PRESENT IN    .0000000000E+00 NUMERIC
46 DATA PRESENT IN    .0000000000E+00 NUMERIC
47 DATA PRESENT IN    .0000000000E+00 NUMERIC
48 DATA PRESENT IN    .0000000000E+00 NUMERIC
49 DATA PRESENT IN    .0000000000E+00 NUMERIC
50 DATA PRESENT IN    .0000000000E+00 NUMERIC
51 DATA PRESENT IN    .0000000000E+00 NUMERIC
52 DATA PRESENT IN    .0000000000E+00 NUMERIC
53 DATA PRESENT IN    .0000000000E+00 NUMERIC
54 DATA PRESENT IN    .0000000000E+00 NUMERIC
55 DATA PRESENT IN    .0000000000E+00 NUMERIC
56 IDENTIFICATION      .9800000000E+02 CODE TABLE 1031
57 GENERATING APPL     .1000000000E+01 CODE TABLE 1032
58 % CONFIDENCE        .7000000000E+02 NUMERIC
59 % CONFIDENCE        .7000000000E+02 NUMERIC
60 % CONFIDENCE        .7000000000E+02 NUMERIC
61 % CONFIDENCE        .7000000000E+02 NUMERIC
62 % CONFIDENCE        .7000000000E+02 NUMERIC
63 % CONFIDENCE        .7000000000E+02 NUMERIC
64 % CONFIDENCE        .7000000000E+02 NUMERIC
65 % CONFIDENCE        .7000000000E+02 NUMERIC
66 % CONFIDENCE        .7000000000E+02 NUMERIC
67 % CONFIDENCE        .7000000000E+02 NUMERIC
68 % CONFIDENCE        .7000000000E+02 NUMERIC
69 % CONFIDENCE        .7000000000E+02 NUMERIC
70 % CONFIDENCE        .7000000000E+02 NUMERIC
71 % CONFIDENCE        .7000000000E+02 NUMERIC
72 % CONFIDENCE        .7000000000E+02 NUMERIC
73 % CONFIDENCE        .7000000000E+02 NUMERIC

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74 % CONFIDENCE      .7000000000E+02  NUMERIC
75 % CONFIDENCE      .7000000000E+02  NUMERIC
76 % CONFIDENCE      .7000000000E+02  NUMERIC
77 % CONFIDENCE      .7000000000E+02  NUMERIC
78 % CONFIDENCE      .7000000000E+02  NUMERIC
79 % CONFIDENCE      .7000000000E+02  NUMERIC
80 % CONFIDENCE      .7000000000E+02  NUMERIC
81 % CONFIDENCE      .7000000000E+02  NUMERIC
82 % CONFIDENCE      .7000000000E+02  NUMERIC
83 % CONFIDENCE      .7000000000E+02  NUMERIC
84 % CONFIDENCE      .7000000000E+02  NUMERIC
```



## 3.6 Synop land high level station

RDB type 1, subtype 1

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 194
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 0
    BUFR MESSAGE SUBTYPE              1
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                 1
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                        51.18
    LONGITUDE 1                       8.48
    IDENTIFIER                        10427
    TOTAL BUFR MESSAGE LENGTH         194
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               10
    MINUTE (RDB INSERTION)             13
    SECOND (RDB INSERTION)             45
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                 10
    MINUTE (MDB ARRIVAL)               12
    SECOND (MDB ARRIVAL)               35
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             69
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)        28
    RESERVED                           0
    NUMBER OF DATA SUBSETS             1
    FLAG (DATA TYPE/DATA COMPRESSION)  128

    DATA DESCRIPTORS (UNEXPANDED)

    1 307007
    2 013023
    3 013013

```

4 222000  
5 101034  
6 031031  
7 001031  
8 001032  
9 101034  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002001 TYPE OF STATION  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007001 HEIGHT OF STATION  
12 010004 PRESSURE  
13 007004 PRESSURE  
14 010003 GEOPOTENTIAL  
15 010061 3 HOUR PRESSURE CHANGE  
16 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
17 011011 WIND DIRECTION AT 10 M  
18 011012 WIND SPEED AT 10 M  
19 012004 DRY BULB TEMPERATURE AT 2M  
20 012006 DEW POINT TEMPERATURE AT 2M  
21 013003 RELATIVE HUMIDITY  
22 020001 HORIZONTAL VISIBILITY  
23 020003 PRESENT WEATHER  
24 020004 PAST WEATHER (1)  
25 020005 PAST WEATHER (2)  
26 020010 CLOUD COVER (TOTAL)  
27 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
28 020011 CLOUD AMOUNT  
29 020013 HEIGHT OF BASE OF CLOUD  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 020012 CLOUD TYPE  
33 013023 TOTAL PRECIPITATION PAST 24 HOURS  
34 013013 TOTAL SNOW DEPTH  
35 222000 QUALITY INFORMATION FOLLOW  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
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61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
63 031031 DATA PRESENT INDICATOR  
64 031031 DATA PRESENT INDICATOR  
65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
71 001032 GENERATING APPLICATION  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE  
81 033007 % CONFIDENCE  
82 033007 % CONFIDENCE

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83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
88 033007 % CONFIDENCE
89 033007 % CONFIDENCE
90 033007 % CONFIDENCE
91 033007 % CONFIDENCE
92 033007 % CONFIDENCE
93 033007 % CONFIDENCE
94 033007 % CONFIDENCE
95 033007 % CONFIDENCE
96 033007 % CONFIDENCE
97 033007 % CONFIDENCE
98 033007 % CONFIDENCE
99 033007 % CONFIDENCE
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 WMO BLOCK NUMBE 0.1000000000E+02 NUMERIC
2 WMO STATION NUM 0.4270000000E+03 NUMERIC
3 TYPE OF STATION 0.1000000000E+01 CODE TABLE 2001
4 YEAR 0.2001000000E+04 YEAR
5 MONTH 0.2000000000E+01 MONTH
6 DAY 0.1000000000E+01 DAY
7 HOUR 0.1000000000E+02 HOUR
8 MINUTE 0.0000000000E+00 MINUTE
9 LATITUDE (HIGH 0.5118000000E+02 DEGREE
10 LONGITUDE (HIGH 0.8480000000E+01 DEGREE
11 HEIGHT OF STATI 0.8590000000E+03 M
12 PRESSURE 0.9222000000E+05 PA
13 PRESSURE 0.8500000000E+05 PA
14 GEOPOTENTIAL 0.1467000000E+05 M**2/S**2
15 3 HOUR PRESSURE 0.2000000000E+02 PA
16 CHARACTERISTIC 0.0000000000E+00 CODE TABLE 10063
17 WIND DIRECTION 0.2800000000E+03 DEGREE TRUE
18 WIND SPEED AT 1 0.4000000000E+01 M/S
19 DRY BULB TEMPER 0.2687000000E+03 K
20 DEW POINT TEMPE 0.2682000000E+03 K
21 RELATIVE HUMIDI MISSING %
22 HORIZONTAL VISI 0.4000000000E+03 M
23 PRESENT WEATHER 0.7100000000E+02 CODE TABLE 20003
24 PAST WEATHER (1 0.8000000000E+01 CODE TABLE 20004
25 PAST WEATHER (2 0.4000000000E+01 CODE TABLE 20005
26 CLOUD COVER (TO 0.1000000000E+03 %
27 VERTICAL SIGNIF 0.1000000000E+01 CODE TABLE 8002
28 CLOUD AMOUNT 0.7000000000E+01 CODE TABLE 20011
29 HEIGHT OF BASE 0.3000000000E+02 M
30 CLOUD TYPE 0.3700000000E+02 CODE TABLE 20012
31 CLOUD TYPE 0.6100000000E+02 CODE TABLE 20012
32 CLOUD TYPE 0.6000000000E+02 CODE TABLE 20012
33 TOTAL PRECIPITA MISSING KG/M**2
34 TOTAL SNOW DEPT MISSING M
35 QUALITY INFORMA 0.0000000000E+00
36 DATA PRESENT IN 0.0000000000E+00 NUMERIC
37 DATA PRESENT IN 0.0000000000E+00 NUMERIC
38 DATA PRESENT IN 0.0000000000E+00 NUMERIC
39 DATA PRESENT IN 0.0000000000E+00 NUMERIC
40 DATA PRESENT IN 0.0000000000E+00 NUMERIC
41 DATA PRESENT IN 0.0000000000E+00 NUMERIC
42 DATA PRESENT IN 0.0000000000E+00 NUMERIC
43 DATA PRESENT IN 0.0000000000E+00 NUMERIC
44 DATA PRESENT IN 0.0000000000E+00 NUMERIC
45 DATA PRESENT IN 0.0000000000E+00 NUMERIC
46 DATA PRESENT IN 0.0000000000E+00 NUMERIC
47 DATA PRESENT IN 0.0000000000E+00 NUMERIC
48 DATA PRESENT IN 0.0000000000E+00 NUMERIC
49 DATA PRESENT IN 0.0000000000E+00 NUMERIC
50 DATA PRESENT IN 0.0000000000E+00 NUMERIC
51 DATA PRESENT IN 0.0000000000E+00 NUMERIC
52 DATA PRESENT IN 0.0000000000E+00 NUMERIC
53 DATA PRESENT IN 0.0000000000E+00 NUMERIC
54 DATA PRESENT IN 0.0000000000E+00 NUMERIC
55 DATA PRESENT IN 0.0000000000E+00 NUMERIC
56 DATA PRESENT IN 0.0000000000E+00 NUMERIC
57 DATA PRESENT IN 0.0000000000E+00 NUMERIC
58 DATA PRESENT IN 0.0000000000E+00 NUMERIC
59 DATA PRESENT IN 0.0000000000E+00 NUMERIC
60 DATA PRESENT IN 0.0000000000E+00 NUMERIC
61 DATA PRESENT IN 0.0000000000E+00 NUMERIC
62 DATA PRESENT IN 0.0000000000E+00 NUMERIC
63 DATA PRESENT IN 0.0000000000E+00 NUMERIC
64 DATA PRESENT IN 0.0000000000E+00 NUMERIC
65 DATA PRESENT IN 0.0000000000E+00 NUMERIC
66 DATA PRESENT IN 0.0000000000E+00 NUMERIC
67 DATA PRESENT IN 0.0000000000E+00 NUMERIC

```

68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
71	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.7000000000E+02	NUMERIC	
82	% CONFIDENCE	0.7500000000E+02	NUMERIC	
83	% CONFIDENCE	0.7400000000E+02	NUMERIC	
84	% CONFIDENCE	0.7900000000E+02	NUMERIC	
85	% CONFIDENCE	0.7400000000E+02	NUMERIC	
86	% CONFIDENCE	0.7700000000E+02	NUMERIC	
87	% CONFIDENCE	0.7900000000E+02	NUMERIC	
88	% CONFIDENCE	0.7000000000E+02	NUMERIC	
89	% CONFIDENCE	0.7000000000E+02	NUMERIC	
90	% CONFIDENCE	0.8000000000E+02	NUMERIC	
91	% CONFIDENCE	0.7700000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.6900000000E+02	NUMERIC	
94	% CONFIDENCE	0.7500000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7500000000E+02	NUMERIC	
98	% CONFIDENCE	0.7000000000E+02	NUMERIC	
99	% CONFIDENCE	0.7500000000E+02	NUMERIC	
100	% CONFIDENCE	0.8400000000E+02	NUMERIC	
101	% CONFIDENCE	0.8500000000E+02	NUMERIC	
102	% CONFIDENCE	0.7500000000E+02	NUMERIC	
103	% CONFIDENCE	0.7500000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	

## 3.7 Synop ship abbreviated

RDB type 1 subtype 9

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 198
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                 0
    ORIGINATING CENTRE                     98
    UPDATE SEQUENCE NUMBER                 1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                     1
    BUFR MESSAGE SUBTYPE                   9
    VERSION NUMBER OF LOCAL TABLE        1
    YEAR                                  1
    MONTH                                2
    DAY                                  1
    HOUR                                  12
    MINUTE                                0
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                    0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                    52

    REPORT DATA BASE KEY

    RDB DATA TYPE                         1
    RDB DATA SUBTYPE                      9
    YEAR                                  2001
    MONTH                                  2
    DAY                                    1
    HOUR                                  12
    MINUTE                                0
    SECOND                                 0
    LATITUDE 1                            49.30
    LONGITUDE 1                           -4.20
    IDENTIFIER                             ELML7
    TOTAL BUFR MESSAGE LENGTH              198
    DAY (RDB INSERTION)                    1
    HOUR (RDB INSERTION)                   12
    MINUTE (RDB INSERTION)                 20
    SECOND (RDB INSERTION)                  6
    DAY (MDB ARRIVAL)                      1
    HOUR (MDB ARRIVAL)                     12
    MINUTE (MDB ARRIVAL)                   15
    SECOND (MDB ARRIVAL)                   55
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        1
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    QUALITY CONTROL % CONF                  70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)            28
    RESERVED                               0
    NUMBER OF DATA SUBSETS                 1
    FLAG (DATA TYPE/DATA COMPRESSION)      128

    DATA DESCRIPTORS (UNEXPANDED)

    1 308004
    2 012005

```

3 010197  
4 222000  
5 101034  
6 031031  
7 001031  
8 001032  
9 101034  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 022042 SEA/WATER TEMPERATURE  
33 012005 WET BULB TEMPERATURE AT 2M  
34 010197 ANEMOMETER HEIGHT  
35 222000 QUALITY INFORMATION FOLLOW  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
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65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
71 001032 GENERATING APPLICATION  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE  
81 033007 % CONFIDENCE

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82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
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86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
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98 033007 % CONFIDENCE
99 033007 % CONFIDENCE
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE

```

STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

```

1 SHIP OR MOBILE      0.1009000000E+04 CCITTIA5          ELM17
2 DIRECTION OF MO      MISSING DEGREE TRUE
3 SPEED OF MOTION      MISSING M/S
4 TYPE OF STATION      0.1000000000E+01 CODE TABLE    2001
5 YEAR                0.2001000000E+04 YEAR
6 MONTH              0.2000000000E+01 MONTH
7 DAY                0.1000000000E+01 DAY
8 HOUR              0.1200000000E+02 HOUR
9 MINUTE            0.0000000000E+00 MINUTE
10 LATITUDE (COARS    0.4930000000E+02 DEGREE
11 LONGITUDE (COAR   -0.4200000000E+01 DEGREE
12 PRESSURE          MISSING PA
13 PRESSURE REDUCE    0.1028200000E+06 PA
14 3 HOUR PRESSURE    MISSING PA
15 CHARACTERISTIC      MISSING CODE TABLE    10063
16 WIND DIRECTION      MISSING DEGREE TRUE
17 WIND SPEED AT 1     MISSING M/S
18 DRY BULB TEMPER     0.2809000000E+03 K
19 DEW POINT TEMPE     0.2754000000E+03 K
20 RELATIVE HUMIDI     MISSING %
21 HORIZONTAL VISI     MISSING M
22 PRESENT WEATHER     MISSING CODE TABLE    20003
23 PAST WEATHER (1     MISSING CODE TABLE    20004
24 PAST WEATHER (2     MISSING CODE TABLE    20005
25 CLOUD COVER (TO     MISSING %
26 VERTICAL SIGNIF     0.1000000000E+01 CODE TABLE    8002
27 CLOUD AMOUNT        MISSING CODE TABLE    20011
28 HEIGHT OF BASE      MISSING M
29 CLOUD TYPE          0.6200000000E+02 CODE TABLE    20012
30 CLOUD TYPE          0.6100000000E+02 CODE TABLE    20012
31 CLOUD TYPE          0.6000000000E+02 CODE TABLE    20012
32 SEA/WATER TEMPE     MISSING K
33 WET BULB TEMPER     MISSING K
34 ANEMOMETER HEIG     MISSING M
35 QUALITY INFORMA     0.0000000000E+00
36 DATA PRESENT IN    0.0000000000E+00 NUMERIC
37 DATA PRESENT IN    0.0000000000E+00 NUMERIC
38 DATA PRESENT IN    0.0000000000E+00 NUMERIC
39 DATA PRESENT IN    0.0000000000E+00 NUMERIC
40 DATA PRESENT IN    0.0000000000E+00 NUMERIC
41 DATA PRESENT IN    0.0000000000E+00 NUMERIC
42 DATA PRESENT IN    0.0000000000E+00 NUMERIC
43 DATA PRESENT IN    0.0000000000E+00 NUMERIC
44 DATA PRESENT IN    0.0000000000E+00 NUMERIC
45 DATA PRESENT IN    0.0000000000E+00 NUMERIC
46 DATA PRESENT IN    0.0000000000E+00 NUMERIC
47 DATA PRESENT IN    0.0000000000E+00 NUMERIC
48 DATA PRESENT IN    0.0000000000E+00 NUMERIC
49 DATA PRESENT IN    0.0000000000E+00 NUMERIC
50 DATA PRESENT IN    0.0000000000E+00 NUMERIC
51 DATA PRESENT IN    0.0000000000E+00 NUMERIC
52 DATA PRESENT IN    0.0000000000E+00 NUMERIC
53 DATA PRESENT IN    0.0000000000E+00 NUMERIC
54 DATA PRESENT IN    0.0000000000E+00 NUMERIC
55 DATA PRESENT IN    0.0000000000E+00 NUMERIC
56 DATA PRESENT IN    0.0000000000E+00 NUMERIC
57 DATA PRESENT IN    0.0000000000E+00 NUMERIC
58 DATA PRESENT IN    0.0000000000E+00 NUMERIC
59 DATA PRESENT IN    0.0000000000E+00 NUMERIC
60 DATA PRESENT IN    0.0000000000E+00 NUMERIC
61 DATA PRESENT IN    0.0000000000E+00 NUMERIC
62 DATA PRESENT IN    0.0000000000E+00 NUMERIC
63 DATA PRESENT IN    0.0000000000E+00 NUMERIC
64 DATA PRESENT IN    0.0000000000E+00 NUMERIC
65 DATA PRESENT IN    0.0000000000E+00 NUMERIC

```

66	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
71	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.7000000000E+02	NUMERIC	
82	% CONFIDENCE	0.7000000000E+02	NUMERIC	
83	% CONFIDENCE	0.7000000000E+02	NUMERIC	
84	% CONFIDENCE	0.7000000000E+02	NUMERIC	
85	% CONFIDENCE	0.7000000000E+02	NUMERIC	
86	% CONFIDENCE	0.7000000000E+02	NUMERIC	
87	% CONFIDENCE	0.7000000000E+02	NUMERIC	
88	% CONFIDENCE	0.7000000000E+02	NUMERIC	
89	% CONFIDENCE	0.7400000000E+02	NUMERIC	
90	% CONFIDENCE	0.7400000000E+02	NUMERIC	
91	% CONFIDENCE	0.7000000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.7000000000E+02	NUMERIC	
94	% CONFIDENCE	0.7000000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7000000000E+02	NUMERIC	
98	% CONFIDENCE	0.7000000000E+02	NUMERIC	
99	% CONFIDENCE	0.7000000000E+02	NUMERIC	
100	% CONFIDENCE	0.7500000000E+02	NUMERIC	
101	% CONFIDENCE	0.7900000000E+02	NUMERIC	
102	% CONFIDENCE	0.7900000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	



## 3.8 Synop ship

RDB type 1 subtype 11

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ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 198
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                 0
    ORIGINATING CENTRE                     98
    UPDATE SEQUENCE NUMBER                  1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                      1
    BUFR MESSAGE SUBTYPE                   11
    VERSION NUMBER OF LOCAL TABLE         1
    YEAR                                   1
    MONTH                                  2
    DAY                                    1
    HOUR                                   10
    MINUTE                                 0
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                     0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                    52

    REPORT DATA BASE KEY

    RDB DATA TYPE                         1
    RDB DATA SUBTYPE                      11
    YEAR                                   2001
    MONTH                                  2
    DAY                                    1
    HOUR                                   10
    MINUTE                                 0
    SECOND                                 0
    LATITUDE 1                             54.10
    LONGITUDE 1                             12.10
    IDENTIFIER                              Y3CW
    TOTAL BUFR MESSAGE LENGTH              198
    DAY (RDB INSERTION)                     1
    HOUR (RDB INSERTION)                    10
    MINUTE (RDB INSERTION)                   3
    SECOND (RDB INSERTION)                  10
    DAY (MDB ARRIVAL)                       1
    HOUR (MDB ARRIVAL)                      9
    MINUTE (MDB ARRIVAL)                    59
    SECOND (MDB ARRIVAL)                    19
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         1
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    QUALITY CONTROL % CONF                  70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)            28
    RESERVED                                0
    NUMBER OF DATA SUBSETS                 1
    FLAG (DATA TYPE/DATA COMPRESSION)      128

    DATA DESCRIPTORS (UNEXPANDED)

    1 308004
    2 012005

```

3 010197  
4 222000  
5 101034  
6 031031  
7 001031  
8 001032  
9 101034  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 022042 SEA/WATER TEMPERATURE  
33 012005 WET BULB TEMPERATURE AT 2M  
34 010197 ANEMOMETER HEIGHT  
35 222000 QUALITY INFORMATION FOLLOW  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
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47 031031 DATA PRESENT INDICATOR  
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62 031031 DATA PRESENT INDICATOR  
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64 031031 DATA PRESENT INDICATOR  
65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
71 001032 GENERATING APPLICATION  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE  
81 033007 % CONFIDENCE

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82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
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87 033007 % CONFIDENCE
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99 033007 % CONFIDENCE
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 SHIP OR MOBILE 0.1009000000E+04 CCITTIA5 Y3CW
2 DIRECTION OF MO 0.0000000000E+00 DEGREE TRUE
3 SPEED OF MOTION 0.0000000000E+00 M/S
4 TYPE OF STATION 0.1000000000E+01 CODE TABLE 2001
5 YEAR 0.2001000000E+04 YEAR
6 MONTH 0.2000000000E+01 MONTH
7 DAY 0.1000000000E+01 DAY
8 HOUR 0.1000000000E+02 HOUR
9 MINUTE 0.0000000000E+00 MINUTE
10 LATITUDE (COARS 0.5410000000E+02 DEGREE
11 LONGITUDE (COAR 0.1210000000E+02 DEGREE
12 PRESSURE MISSING PA
13 PRESSURE REDUCE 0.1023300000E+06 PA
14 3 HOUR PRESSURE -0.2000000000E+02 PA
15 CHARACTERISTIC 0.8000000000E+01 CODE TABLE 10063
16 WIND DIRECTION 0.3100000000E+03 DEGREE TRUE
17 WIND SPEED AT 1 0.3000000000E+01 M/S
18 DRY BULB TEMPER 0.2754000000E+03 K
19 DEW POINT TEMPE 0.2753000000E+03 K
20 RELATIVE HUMIDI MISSING %
21 HORIZONTAL VISI MISSING M
22 PRESENT WEATHER MISSING CODE TABLE 20003
23 PAST WEATHER (1 MISSING CODE TABLE 20004
24 PAST WEATHER (2 MISSING CODE TABLE 20005
25 CLOUD COVER (TO MISSING %
26 VERTICAL SIGNIF 0.1000000000E+01 CODE TABLE 8002
27 CLOUD AMOUNT MISSING CODE TABLE 20011
28 HEIGHT OF BASE MISSING M
29 CLOUD TYPE 0.6200000000E+02 CODE TABLE 20012
30 CLOUD TYPE 0.6100000000E+02 CODE TABLE 20012
31 CLOUD TYPE 0.6000000000E+02 CODE TABLE 20012
32 SEA/WATER TEMPE MISSING K
33 WET BULB TEMPER MISSING K
34 ANEMOMETER HEIG 0.1400000000E+02 M
35 QUALITY INFORMA 0.0000000000E+00
36 DATA PRESENT IN 0.0000000000E+00 NUMERIC
37 DATA PRESENT IN 0.0000000000E+00 NUMERIC
38 DATA PRESENT IN 0.0000000000E+00 NUMERIC
39 DATA PRESENT IN 0.0000000000E+00 NUMERIC
40 DATA PRESENT IN 0.0000000000E+00 NUMERIC
41 DATA PRESENT IN 0.0000000000E+00 NUMERIC
42 DATA PRESENT IN 0.0000000000E+00 NUMERIC
43 DATA PRESENT IN 0.0000000000E+00 NUMERIC
44 DATA PRESENT IN 0.0000000000E+00 NUMERIC
45 DATA PRESENT IN 0.0000000000E+00 NUMERIC
46 DATA PRESENT IN 0.0000000000E+00 NUMERIC
47 DATA PRESENT IN 0.0000000000E+00 NUMERIC
48 DATA PRESENT IN 0.0000000000E+00 NUMERIC
49 DATA PRESENT IN 0.0000000000E+00 NUMERIC
50 DATA PRESENT IN 0.0000000000E+00 NUMERIC
51 DATA PRESENT IN 0.0000000000E+00 NUMERIC
52 DATA PRESENT IN 0.0000000000E+00 NUMERIC
53 DATA PRESENT IN 0.0000000000E+00 NUMERIC
54 DATA PRESENT IN 0.0000000000E+00 NUMERIC
55 DATA PRESENT IN 0.0000000000E+00 NUMERIC
56 DATA PRESENT IN 0.0000000000E+00 NUMERIC
57 DATA PRESENT IN 0.0000000000E+00 NUMERIC
58 DATA PRESENT IN 0.0000000000E+00 NUMERIC
59 DATA PRESENT IN 0.0000000000E+00 NUMERIC
60 DATA PRESENT IN 0.0000000000E+00 NUMERIC
61 DATA PRESENT IN 0.0000000000E+00 NUMERIC
62 DATA PRESENT IN 0.0000000000E+00 NUMERIC
63 DATA PRESENT IN 0.0000000000E+00 NUMERIC
64 DATA PRESENT IN 0.0000000000E+00 NUMERIC
65 DATA PRESENT IN 0.0000000000E+00 NUMERIC
66 DATA PRESENT IN 0.0000000000E+00 NUMERIC

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67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
71	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.9000000000E+02	NUMERIC	
82	% CONFIDENCE	0.9000000000E+02	NUMERIC	
83	% CONFIDENCE	0.7000000000E+02	NUMERIC	
84	% CONFIDENCE	0.7000000000E+02	NUMERIC	
85	% CONFIDENCE	0.7700000000E+02	NUMERIC	
86	% CONFIDENCE	0.7900000000E+02	NUMERIC	
87	% CONFIDENCE	0.7000000000E+02	NUMERIC	
88	% CONFIDENCE	0.7000000000E+02	NUMERIC	
89	% CONFIDENCE	0.7400000000E+02	NUMERIC	
90	% CONFIDENCE	0.7400000000E+02	NUMERIC	
91	% CONFIDENCE	0.7000000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.7000000000E+02	NUMERIC	
94	% CONFIDENCE	0.7000000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7000000000E+02	NUMERIC	
98	% CONFIDENCE	0.7000000000E+02	NUMERIC	
99	% CONFIDENCE	0.7000000000E+02	NUMERIC	
100	% CONFIDENCE	0.7500000000E+02	NUMERIC	
101	% CONFIDENCE	0.7900000000E+02	NUMERIC	
102	% CONFIDENCE	0.7900000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	

### 3.9 Synop ship second record

RDB type 1, subtype 12

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 242
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 1
    BUFR MESSAGE SUBTYPE              12
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                              4
    MONTH                             1
    DAY                               7
    HOUR                              0
    MINUTE                            0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                12
    YEAR                             2004
    MONTH                             1
    DAY                               7
    HOUR                              0
    MINUTE                            0
    SECOND                            0
    LATITUDE 1                       39.20
    LONGITUDE 1                      129.50
    IDENTIFIER                       UCDM
    TOTAL BUFR MESSAGE LENGTH        242
    DAY (RDB INSERTION)               7
    HOUR (RDB INSERTION)              0
    MINUTE (RDB INSERTION)            29
    SECOND (RDB INSERTION)            18
    DAY (MDB ARRIVAL)                 7
    HOUR (MDB ARRIVAL)                0
    MINUTE (MDB ARRIVAL)              28
    SECOND (MDB ARRIVAL)              39
    CORRECTION NUMBER                 3
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      64
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301036
    2 012015
    3 012014

```

4 302024  
5 022001  
6 022011  
7 022021  
8 013031  
9 014015  
10 014031  
11 020063  
12 020063  
13 020063  
14 020063  
15 020033  
16 020031  
17 020032  
18 020034  
19 020037  
20 020038  
21 020036  
22 222000  
23 101039  
24 031031  
25 001031  
26 001032  
27 101039  
28 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 012015 MINIMUM TEMPERATURE AT 2M, PAST 12 HOURS  
13 012014 MAXIMUM TEMPERATURE AT 2M, PAST 12 HOURS  
14 022002 DIRECTION OF WIND WAVES  
15 022012 PERIOD OF WIND WAVES  
16 022022 HEIGHT OF WIND WAVES  
17 022003 DIRECTION OF SWELL WAVES  
18 022013 PERIOD OF SWELL WAVES  
19 022023 HEIGHT OF SWELL WAVES  
20 022003 DIRECTION OF SWELL WAVES  
21 022013 PERIOD OF SWELL WAVES  
22 022023 HEIGHT OF SWELL WAVES  
23 022001 DIRECTION OF WAVES  
24 022011 PERIOD OF WAVES  
25 022021 HEIGHT OF WAVES  
26 013031 EVAPOTRANSPIRATION  
27 014015 NET RADIATION INTEGRATED OVER 24HOURS  
28 014031 TOTAL SUNSHINE  
29 020063 SPECIAL PHENOMENA  
30 020063 SPECIAL PHENOMENA  
31 020063 SPECIAL PHENOMENA  
32 020063 SPECIAL PHENOMENA  
33 020033 CAUSE OF ICE ACCRETION  
34 020031 ICE DEPOSIT (THICKNESS)  
35 020032 RATE OF ICE ACCRETION  
36 020034 SEA ICE CONCETRATION  
37 020037 ICE DEVELOPMENT  
38 020038 BEARING OF ICE EDGE  
39 020036 ICE SITUATION  
40 222000 QUALITY INFORMATION FOLLOW  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
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61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
63 031031 DATA PRESENT INDICATOR  
64 031031 DATA PRESENT INDICATOR

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65 031031 DATA PRESENT INDICATOR
66 031031 DATA PRESENT INDICATOR
67 031031 DATA PRESENT INDICATOR
68 031031 DATA PRESENT INDICATOR
69 031031 DATA PRESENT INDICATOR
70 031031 DATA PRESENT INDICATOR
71 031031 DATA PRESENT INDICATOR
72 031031 DATA PRESENT INDICATOR
73 031031 DATA PRESENT INDICATOR
74 031031 DATA PRESENT INDICATOR
75 031031 DATA PRESENT INDICATOR
76 031031 DATA PRESENT INDICATOR
77 031031 DATA PRESENT INDICATOR
78 031031 DATA PRESENT INDICATOR
79 031031 DATA PRESENT INDICATOR
80 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
81 001032 GENERATING APPLICATION
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
88 033007 % CONFIDENCE
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112 033007 % CONFIDENCE
113 033007 % CONFIDENCE
114 033007 % CONFIDENCE
115 033007 % CONFIDENCE
116 033007 % CONFIDENCE
117 033007 % CONFIDENCE
118 033007 % CONFIDENCE
119 033007 % CONFIDENCE
120 033007 % CONFIDENCE

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STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

1 SHIP OR MOBILE	.1009000000E+04	CCITTIA5	UCDM
2 DIRECTION OF MO	.3600000000E+03	DEGREE TRUE	
3 SPEED OF MOTION	.7000000000E+01	M/S	
4 TYPE OF STATION	.1000000000E+01	CODE TABLE	2001
5 YEAR	.2004000000E+04	YEAR	
6 MONTH	.1000000000E+01	MONTH	
7 DAY	.7000000000E+01	DAY	
8 HOUR	.0000000000E+00	HOUR	
9 MINUTE	.0000000000E+00	MINUTE	
10 LATITUDE (COARS	.3920000076E+02	DEGREE	
11 LONGITUDE (COAR	.1295000000E+03	DEGREE	
12 MINIMUM TEMPERA		MISSING K	
13 MAXIMUM TEMPERA		MISSING K	
14 DIRECTION OF WI		MISSING DEGREE TRUE	
15 PERIOD OF WIND	.3000000000E+01	S	
16 HEIGHT OF WIND	.1000000000E+01	M	
17 DIRECTION OF SW		MISSING DEGREE TRUE	
18 PERIOD OF SWELL		MISSING S	
19 HEIGHT OF SWELL		MISSING M	
20 DIRECTION OF SW		MISSING DEGREE TRUE	
21 PERIOD OF SWELL		MISSING S	
22 HEIGHT OF SWELL		MISSING M	
23 DIRECTION OF WA		MISSING DEGREE TRUE	
24 PERIOD OF WAVES		MISSING S	
25 HEIGHT OF WAVES		MISSING M	
26 EVAPOTRANSPIRAT		MISSING KG/M**2	
27 NET RADIATION I		MISSING J/M**2	
28 TOTAL SUNSHINE		MISSING MINUTE	
29 SPECIAL PHENOME		MISSING CODE TABLE	20063
30 SPECIAL PHENOME		MISSING CODE TABLE	20063
31 SPECIAL PHENOME		MISSING CODE TABLE	20063
32 SPECIAL PHENOME		MISSING CODE TABLE	20063
33 CAUSE OF ICE AC		MISSING FLAG TABLE	20033

34	ICE DEPOSIT (TH	MISSING M	
35	RATE OF ICE ACC	MISSING CODE TABLE	20032
36	SEA ICE CONCETR	MISSING CODE TABLE	20034
37	ICE DEVELOPMENT	MISSING CODE TABLE	20037
38	BEARING OF ICE	MISSING DEGREE TRUE	
39	ICE SITUATION	MISSING CODE TABLE	20036
40	QUALITY INFORMA	.0000000000E+00	
41	DATA PRESENT IN	.0000000000E+00	NUMERIC
42	DATA PRESENT IN	.0000000000E+00	NUMERIC
43	DATA PRESENT IN	.0000000000E+00	NUMERIC
44	DATA PRESENT IN	.0000000000E+00	NUMERIC
45	DATA PRESENT IN	.0000000000E+00	NUMERIC
46	DATA PRESENT IN	.0000000000E+00	NUMERIC
47	DATA PRESENT IN	.0000000000E+00	NUMERIC
48	DATA PRESENT IN	.0000000000E+00	NUMERIC
49	DATA PRESENT IN	.0000000000E+00	NUMERIC
50	DATA PRESENT IN	.0000000000E+00	NUMERIC
51	DATA PRESENT IN	.0000000000E+00	NUMERIC
52	DATA PRESENT IN	.0000000000E+00	NUMERIC
53	DATA PRESENT IN	.0000000000E+00	NUMERIC
54	DATA PRESENT IN	.0000000000E+00	NUMERIC
55	DATA PRESENT IN	.0000000000E+00	NUMERIC
56	DATA PRESENT IN	.0000000000E+00	NUMERIC
57	DATA PRESENT IN	.0000000000E+00	NUMERIC
58	DATA PRESENT IN	.0000000000E+00	NUMERIC
59	DATA PRESENT IN	.0000000000E+00	NUMERIC
60	DATA PRESENT IN	.0000000000E+00	NUMERIC
61	DATA PRESENT IN	.0000000000E+00	NUMERIC
62	DATA PRESENT IN	.0000000000E+00	NUMERIC
63	DATA PRESENT IN	.0000000000E+00	NUMERIC
64	DATA PRESENT IN	.0000000000E+00	NUMERIC
65	DATA PRESENT IN	.0000000000E+00	NUMERIC
66	DATA PRESENT IN	.0000000000E+00	NUMERIC
67	DATA PRESENT IN	.0000000000E+00	NUMERIC
68	DATA PRESENT IN	.0000000000E+00	NUMERIC
69	DATA PRESENT IN	.0000000000E+00	NUMERIC
70	DATA PRESENT IN	.0000000000E+00	NUMERIC
71	DATA PRESENT IN	.0000000000E+00	NUMERIC
72	DATA PRESENT IN	.0000000000E+00	NUMERIC
73	DATA PRESENT IN	.0000000000E+00	NUMERIC
74	DATA PRESENT IN	.0000000000E+00	NUMERIC
75	DATA PRESENT IN	.0000000000E+00	NUMERIC
76	DATA PRESENT IN	.0000000000E+00	NUMERIC
77	DATA PRESENT IN	.0000000000E+00	NUMERIC
78	DATA PRESENT IN	.0000000000E+00	NUMERIC
79	DATA PRESENT IN	.0000000000E+00	NUMERIC
80	IDENTIFICATION	.9800000000E+02	CODE TABLE 1031
81	GENERATING APPL	.1000000000E+01	CODE TABLE 1032
82	% CONFIDENCE	.7000000000E+02	NUMERIC
83	% CONFIDENCE	.7000000000E+02	NUMERIC
84	% CONFIDENCE	.7000000000E+02	NUMERIC
85	% CONFIDENCE	.7000000000E+02	NUMERIC
86	% CONFIDENCE	.7000000000E+02	NUMERIC
87	% CONFIDENCE	.7000000000E+02	NUMERIC
88	% CONFIDENCE	.7000000000E+02	NUMERIC
89	% CONFIDENCE	.7000000000E+02	NUMERIC
90	% CONFIDENCE	.7000000000E+02	NUMERIC
91	% CONFIDENCE	.8700000000E+02	NUMERIC
92	% CONFIDENCE	.8700000000E+02	NUMERIC
93	% CONFIDENCE	.7000000000E+02	NUMERIC
94	% CONFIDENCE	.7000000000E+02	NUMERIC
95	% CONFIDENCE	.7000000000E+02	NUMERIC
96	% CONFIDENCE	.7000000000E+02	NUMERIC
97	% CONFIDENCE	.7000000000E+02	NUMERIC
98	% CONFIDENCE	.7000000000E+02	NUMERIC
99	% CONFIDENCE	.7000000000E+02	NUMERIC
100	% CONFIDENCE	.7000000000E+02	NUMERIC
101	% CONFIDENCE	.7000000000E+02	NUMERIC
102	% CONFIDENCE	.7000000000E+02	NUMERIC
103	% CONFIDENCE	.7000000000E+02	NUMERIC
104	% CONFIDENCE	.7000000000E+02	NUMERIC
105	% CONFIDENCE	.7000000000E+02	NUMERIC
106	% CONFIDENCE	.7000000000E+02	NUMERIC
107	% CONFIDENCE	.7000000000E+02	NUMERIC
108	% CONFIDENCE	.7000000000E+02	NUMERIC
109	% CONFIDENCE	.7000000000E+02	NUMERIC
110	% CONFIDENCE	.7000000000E+02	NUMERIC
111	% CONFIDENCE	.7000000000E+02	NUMERIC
112	% CONFIDENCE	.7000000000E+02	NUMERIC
113	% CONFIDENCE	.7000000000E+02	NUMERIC
114	% CONFIDENCE	.7000000000E+02	NUMERIC
115	% CONFIDENCE	.7000000000E+02	NUMERIC
116	% CONFIDENCE	.7000000000E+02	NUMERIC
117	% CONFIDENCE	.7000000000E+02	NUMERIC
118	% CONFIDENCE	.7000000000E+02	NUMERIC
119	% CONFIDENCE	.7000000000E+02	NUMERIC
120	% CONFIDENCE	.7000000000E+02	NUMERIC



## 3.10 Synop ship (auto)

RDB type 1, subtype 13

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                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 198
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                0
    ORIGINATING CENTRE                    98
    UPDATE SEQUENCE NUMBER                 1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                     1
    BUFR MESSAGE SUBTYPE                   13
    VERSION NUMBER OF LOCAL TABLE         1
    YEAR                                  1
    MONTH                                 2
    DAY                                   1
    HOUR                                  10
    MINUTE                                0
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                    0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                   52

    REPORT DATA BASE KEY

    RDB DATA TYPE                        1
    RDB DATA SUBTYPE                     13
    YEAR                                  2001
    MONTH                                 2
    DAY                                   1
    HOUR                                  10
    MINUTE                                0
    SECOND                                0
    LATITUDE 1                           27.00
    LONGITUDE 1                          -65.40
    IDENTIFIER                            S6IG
    TOTAL BUFR MESSAGE LENGTH             198
    DAY (RDB INSERTION)                   1
    HOUR (RDB INSERTION)                   10
    MINUTE (RDB INSERTION)                 3
    SECOND (RDB INSERTION)                 12
    DAY (MDB ARRIVAL)                      1
    HOUR (MDB ARRIVAL)                     9
    MINUTE (MDB ARRIVAL)                   59
    SECOND (MDB ARRIVAL)                   19
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        1
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                      0
    PART OF MESSAGE                        0
    QUALITY CONTROL % CONF                 70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)           28
    RESERVED                               0
    NUMBER OF DATA SUBSETS                 1
    FLAG (DATA TYPE/DATA COMPRESSION)      128

    DATA DESCRIPTORS (UNEXPANDED)

    1 308004
    2 012005

```

3 010197  
4 222000  
5 101034  
6 031031  
7 001031  
8 001032  
9 101034  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 022042 SEA/WATER TEMPERATURE  
33 012005 WET BULB TEMPERATURE AT 2M  
34 010197 ANEMOMETER HEIGHT  
35 222000 QUALITY INFORMATION FOLLOW  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
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66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
71 001032 GENERATING APPLICATION  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
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81 033007 % CONFIDENCE

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82 033007 % CONFIDENCE
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101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 SHIP OR MOBILE 0.1009000000E+04 CCITTIA5 S6IG
2 DIRECTION OF MO 0.2700000000E+03 DEGREE TRUE
3 SPEED OF MOTION 0.9000000000E+01 M/S
4 TYPE OF STATION 0.0000000000E+00 CODE TABLE 2001
5 YEAR 0.2001000000E+04 YEAR
6 MONTH 0.2000000000E+01 MONTH
7 DAY 0.1000000000E+01 DAY
8 HOUR 0.1000000000E+02 HOUR
9 MINUTE 0.0000000000E+00 MINUTE
10 LATITUDE (COARS 0.2700000000E+02 DEGREE
11 LONGITUDE (COAR -0.6540000000E+02 DEGREE
12 PRESSURE MISSING PA
13 PRESSURE REDUCE 0.1024500000E+06 PA
14 3 HOUR PRESSURE 0.0000000000E+00 PA
15 CHARACTERISTIC 0.4000000000E+01 CODE TABLE 10063
16 WIND DIRECTION 0.1400000000E+03 DEGREE TRUE
17 WIND SPEED AT 1 0.4000000000E+01 M/S
18 DRY BULB TEMPER 0.2946000000E+03 K
19 DEW POINT TEMPE 0.2893000000E+03 K
20 RELATIVE HUMIDI MISSING %
21 HORIZONTAL VISI MISSING M
22 PRESENT WEATHER MISSING CODE TABLE 20003
23 PAST WEATHER (1 MISSING CODE TABLE 20004
24 PAST WEATHER (2 MISSING CODE TABLE 20005
25 CLOUD COVER (TO MISSING %
26 VERTICAL SIGNIF 0.1000000000E+01 CODE TABLE 8002
27 CLOUD AMOUNT MISSING CODE TABLE 20011
28 HEIGHT OF BASE MISSING M
29 CLOUD TYPE 0.6200000000E+02 CODE TABLE 20012
30 CLOUD TYPE 0.6100000000E+02 CODE TABLE 20012
31 CLOUD TYPE 0.6000000000E+02 CODE TABLE 20012
32 SEA/WATER TEMPE MISSING K
33 WET BULB TEMPER MISSING K
34 ANEMOMETER HEIG MISSING M
35 QUALITY INFORMA 0.0000000000E+00
36 DATA PRESENT IN 0.0000000000E+00 NUMERIC
37 DATA PRESENT IN 0.0000000000E+00 NUMERIC
38 DATA PRESENT IN 0.0000000000E+00 NUMERIC
39 DATA PRESENT IN 0.0000000000E+00 NUMERIC
40 DATA PRESENT IN 0.0000000000E+00 NUMERIC
41 DATA PRESENT IN 0.0000000000E+00 NUMERIC
42 DATA PRESENT IN 0.0000000000E+00 NUMERIC
43 DATA PRESENT IN 0.0000000000E+00 NUMERIC
44 DATA PRESENT IN 0.0000000000E+00 NUMERIC
45 DATA PRESENT IN 0.0000000000E+00 NUMERIC
46 DATA PRESENT IN 0.0000000000E+00 NUMERIC
47 DATA PRESENT IN 0.0000000000E+00 NUMERIC
48 DATA PRESENT IN 0.0000000000E+00 NUMERIC
49 DATA PRESENT IN 0.0000000000E+00 NUMERIC
50 DATA PRESENT IN 0.0000000000E+00 NUMERIC
51 DATA PRESENT IN 0.0000000000E+00 NUMERIC
52 DATA PRESENT IN 0.0000000000E+00 NUMERIC
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54 DATA PRESENT IN 0.0000000000E+00 NUMERIC
55 DATA PRESENT IN 0.0000000000E+00 NUMERIC
56 DATA PRESENT IN 0.0000000000E+00 NUMERIC
57 DATA PRESENT IN 0.0000000000E+00 NUMERIC
58 DATA PRESENT IN 0.0000000000E+00 NUMERIC
59 DATA PRESENT IN 0.0000000000E+00 NUMERIC
60 DATA PRESENT IN 0.0000000000E+00 NUMERIC
61 DATA PRESENT IN 0.0000000000E+00 NUMERIC
62 DATA PRESENT IN 0.0000000000E+00 NUMERIC
63 DATA PRESENT IN 0.0000000000E+00 NUMERIC
64 DATA PRESENT IN 0.0000000000E+00 NUMERIC
65 DATA PRESENT IN 0.0000000000E+00 NUMERIC
66 DATA PRESENT IN 0.0000000000E+00 NUMERIC

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67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
71	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.8200000000E+02	NUMERIC	
82	% CONFIDENCE	0.8200000000E+02	NUMERIC	
83	% CONFIDENCE	0.7000000000E+02	NUMERIC	
84	% CONFIDENCE	0.7000000000E+02	NUMERIC	
85	% CONFIDENCE	0.7700000000E+02	NUMERIC	
86	% CONFIDENCE	0.7900000000E+02	NUMERIC	
87	% CONFIDENCE	0.7000000000E+02	NUMERIC	
88	% CONFIDENCE	0.7000000000E+02	NUMERIC	
89	% CONFIDENCE	0.7400000000E+02	NUMERIC	
90	% CONFIDENCE	0.7400000000E+02	NUMERIC	
91	% CONFIDENCE	0.7000000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.7000000000E+02	NUMERIC	
94	% CONFIDENCE	0.7000000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7000000000E+02	NUMERIC	
98	% CONFIDENCE	0.7000000000E+02	NUMERIC	
99	% CONFIDENCE	0.7000000000E+02	NUMERIC	
100	% CONFIDENCE	0.7500000000E+02	NUMERIC	
101	% CONFIDENCE	0.7900000000E+02	NUMERIC	
102	% CONFIDENCE	0.7900000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	

## 3.11 Synop ship auto second record

RDB type 1, subtype 14

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 242
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE              98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                1
    BUFR MESSAGE SUBTYPE             14
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             4
    MONTH                            1
    DAY                              7
    HOUR                             0
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE   6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                14
    YEAR                             2004
    MONTH                            1
    DAY                              7
    HOUR                             0
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       54.00
    LONGITUDE 1                      8.30
    IDENTIFIER                       DFPC
    TOTAL BUFR MESSAGE LENGTH        242
    DAY (RDB INSERTION)              7
    HOUR (RDB INSERTION)             0
    MINUTE (RDB INSERTION)           34
    SECOND (RDB INSERTION)           26
    DAY (MDB ARRIVAL)                7
    HOUR (MDB ARRIVAL)               0
    MINUTE (MDB ARRIVAL)             34
    SECOND (MDB ARRIVAL)             16
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      64
    RESERVED                         0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301036
    2 012015
    3 012014

```

4 302024  
5 022001  
6 022011  
7 022021  
8 013031  
9 014015  
10 014031  
11 020063  
12 020063  
13 020063  
14 020063  
15 020033  
16 020031  
17 020032  
18 020034  
19 020037  
20 020038  
21 020036  
22 222000  
23 101039  
24 031031  
25 001031  
26 001032  
27 101039  
28 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 012015 MINIMUM TEMPERATURE AT 2M, PAST 12 HOURS  
13 012014 MAXIMUM TEMPERATURE AT 2M, PAST 12 HOURS  
14 022002 DIRECTION OF WIND WAVES  
15 022012 PERIOD OF WIND WAVES  
16 022022 HEIGHT OF WIND WAVES  
17 022003 DIRECTION OF SWELL WAVES  
18 022013 PERIOD OF SWELL WAVES  
19 022023 HEIGHT OF SWELL WAVES  
20 022003 DIRECTION OF SWELL WAVES  
21 022013 PERIOD OF SWELL WAVES  
22 022023 HEIGHT OF SWELL WAVES  
23 022001 DIRECTION OF WAVES  
24 022011 PERIOD OF WAVES  
25 022021 HEIGHT OF WAVES  
26 013031 EVAPOTRANSPIRATION  
27 014015 NET RADIATION INTEGRATED OVER 24HOURS  
28 014031 TOTAL SUNSHINE  
29 020063 SPECIAL PHENOMENA  
30 020063 SPECIAL PHENOMENA  
31 020063 SPECIAL PHENOMENA  
32 020063 SPECIAL PHENOMENA  
33 020033 CAUSE OF ICE ACCRETION  
34 020031 ICE DEPOSIT (THICKNESS)  
35 020032 RATE OF ICE ACCRETION  
36 020034 SEA ICE CONCETRATION  
37 020037 ICE DEVELOPMENT  
38 020038 BEARING OF ICE EDGE  
39 020036 ICE SITUATION  
40 222000 QUALITY INFORMATION FOLLOW  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
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59 031031 DATA PRESENT INDICATOR  
60 031031 DATA PRESENT INDICATOR  
61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
63 031031 DATA PRESENT INDICATOR  
64 031031 DATA PRESENT INDICATOR

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65 031031 DATA PRESENT INDICATOR
66 031031 DATA PRESENT INDICATOR
67 031031 DATA PRESENT INDICATOR
68 031031 DATA PRESENT INDICATOR
69 031031 DATA PRESENT INDICATOR
70 031031 DATA PRESENT INDICATOR
71 031031 DATA PRESENT INDICATOR
72 031031 DATA PRESENT INDICATOR
73 031031 DATA PRESENT INDICATOR
74 031031 DATA PRESENT INDICATOR
75 031031 DATA PRESENT INDICATOR
76 031031 DATA PRESENT INDICATOR
77 031031 DATA PRESENT INDICATOR
78 031031 DATA PRESENT INDICATOR
79 031031 DATA PRESENT INDICATOR
80 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
81 001032 GENERATING APPLICATION
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
88 033007 % CONFIDENCE
89 033007 % CONFIDENCE
90 033007 % CONFIDENCE
91 033007 % CONFIDENCE
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107 033007 % CONFIDENCE
108 033007 % CONFIDENCE
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110 033007 % CONFIDENCE
111 033007 % CONFIDENCE
112 033007 % CONFIDENCE
113 033007 % CONFIDENCE
114 033007 % CONFIDENCE
115 033007 % CONFIDENCE
116 033007 % CONFIDENCE
117 033007 % CONFIDENCE
118 033007 % CONFIDENCE
119 033007 % CONFIDENCE
120 033007 % CONFIDENCE

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STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

1 SHIP OR MOBILE	.1009000000E+04	CCITTIA5	DFPC
2 DIRECTION OF MO	.9000000000E+02	DEGREE TRUE	
3 SPEED OF MOTION	.1000000000E+01	M/S	
4 TYPE OF STATION	.0000000000E+00	CODE TABLE	2001
5 YEAR	.2004000000E+04	YEAR	
6 MONTH	.1000000000E+01	MONTH	
7 DAY	.7000000000E+01	DAY	
8 HOUR	.0000000000E+00	HOUR	
9 MINUTE	.0000000000E+00	MINUTE	
10 LATITUDE (COARS	.5400000000E+02	DEGREE	
11 LONGITUDE (COAR	.8300000019E+01	DEGREE	
12 MINIMUM TEMPERA		MISSING K	
13 MAXIMUM TEMPERA		MISSING K	
14 DIRECTION OF WI		MISSING DEGREE TRUE	
15 PERIOD OF WIND		MISSING S	
16 HEIGHT OF WIND		MISSING M	
17 DIRECTION OF SW		MISSING DEGREE TRUE	
18 PERIOD OF SWELL		MISSING S	
19 HEIGHT OF SWELL		MISSING M	
20 DIRECTION OF SW		MISSING DEGREE TRUE	
21 PERIOD OF SWELL		MISSING S	
22 HEIGHT OF SWELL		MISSING M	
23 DIRECTION OF WA		MISSING DEGREE TRUE	
24 PERIOD OF WAVES		MISSING S	
25 HEIGHT OF WAVES		MISSING M	
26 EVAPOTRANSPIRAT		MISSING KG/M**2	
27 NET RADIATION I		MISSING J/M**2	
28 TOTAL SUNSHINE		MISSING MINUTE	
29 SPECIAL PHENOME		MISSING CODE TABLE	20063
30 SPECIAL PHENOME		MISSING CODE TABLE	20063
31 SPECIAL PHENOME		MISSING CODE TABLE	20063
32 SPECIAL PHENOME		MISSING CODE TABLE	20063
33 CAUSE OF ICE AC		MISSING FLAG TABLE	20033

34	ICE DEPOSIT (TH	MISSING M	
35	RATE OF ICE ACC	MISSING CODE TABLE	20032
36	SEA ICE CONCETR	MISSING CODE TABLE	20034
37	ICE DEVELOPMENT	MISSING CODE TABLE	20037
38	BEARING OF ICE	MISSING DEGREE TRUE	
39	ICE SITUATION	MISSING CODE TABLE	20036
40	QUALITY INFORMA	.0000000000E+00	
41	DATA PRESENT IN	.0000000000E+00	NUMERIC
42	DATA PRESENT IN	.0000000000E+00	NUMERIC
43	DATA PRESENT IN	.0000000000E+00	NUMERIC
44	DATA PRESENT IN	.0000000000E+00	NUMERIC
45	DATA PRESENT IN	.0000000000E+00	NUMERIC
46	DATA PRESENT IN	.0000000000E+00	NUMERIC
47	DATA PRESENT IN	.0000000000E+00	NUMERIC
48	DATA PRESENT IN	.0000000000E+00	NUMERIC
49	DATA PRESENT IN	.0000000000E+00	NUMERIC
50	DATA PRESENT IN	.0000000000E+00	NUMERIC
51	DATA PRESENT IN	.0000000000E+00	NUMERIC
52	DATA PRESENT IN	.0000000000E+00	NUMERIC
53	DATA PRESENT IN	.0000000000E+00	NUMERIC
54	DATA PRESENT IN	.0000000000E+00	NUMERIC
55	DATA PRESENT IN	.0000000000E+00	NUMERIC
56	DATA PRESENT IN	.0000000000E+00	NUMERIC
57	DATA PRESENT IN	.0000000000E+00	NUMERIC
58	DATA PRESENT IN	.0000000000E+00	NUMERIC
59	DATA PRESENT IN	.0000000000E+00	NUMERIC
60	DATA PRESENT IN	.0000000000E+00	NUMERIC
61	DATA PRESENT IN	.0000000000E+00	NUMERIC
62	DATA PRESENT IN	.0000000000E+00	NUMERIC
63	DATA PRESENT IN	.0000000000E+00	NUMERIC
64	DATA PRESENT IN	.0000000000E+00	NUMERIC
65	DATA PRESENT IN	.0000000000E+00	NUMERIC
66	DATA PRESENT IN	.0000000000E+00	NUMERIC
67	DATA PRESENT IN	.0000000000E+00	NUMERIC
68	DATA PRESENT IN	.0000000000E+00	NUMERIC
69	DATA PRESENT IN	.0000000000E+00	NUMERIC
70	DATA PRESENT IN	.0000000000E+00	NUMERIC
71	DATA PRESENT IN	.0000000000E+00	NUMERIC
72	DATA PRESENT IN	.0000000000E+00	NUMERIC
73	DATA PRESENT IN	.0000000000E+00	NUMERIC
74	DATA PRESENT IN	.0000000000E+00	NUMERIC
75	DATA PRESENT IN	.0000000000E+00	NUMERIC
76	DATA PRESENT IN	.0000000000E+00	NUMERIC
77	DATA PRESENT IN	.0000000000E+00	NUMERIC
78	DATA PRESENT IN	.0000000000E+00	NUMERIC
79	DATA PRESENT IN	.0000000000E+00	NUMERIC
80	IDENTIFICATION	.9800000000E+02	CODE TABLE 1031
81	GENERATING APPL	.1000000000E+01	CODE TABLE 1032
82	% CONFIDENCE	.7000000000E+02	NUMERIC
83	% CONFIDENCE	.7000000000E+02	NUMERIC
84	% CONFIDENCE	.7000000000E+02	NUMERIC
85	% CONFIDENCE	.7000000000E+02	NUMERIC
86	% CONFIDENCE	.7000000000E+02	NUMERIC
87	% CONFIDENCE	.7000000000E+02	NUMERIC
88	% CONFIDENCE	.7000000000E+02	NUMERIC
89	% CONFIDENCE	.7000000000E+02	NUMERIC
90	% CONFIDENCE	.7000000000E+02	NUMERIC
91	% CONFIDENCE	.8800000000E+02	NUMERIC
92	% CONFIDENCE	.8800000000E+02	NUMERIC
93	% CONFIDENCE	.7000000000E+02	NUMERIC
94	% CONFIDENCE	.7000000000E+02	NUMERIC
95	% CONFIDENCE	.7000000000E+02	NUMERIC
96	% CONFIDENCE	.7000000000E+02	NUMERIC
97	% CONFIDENCE	.7000000000E+02	NUMERIC
98	% CONFIDENCE	.7000000000E+02	NUMERIC
99	% CONFIDENCE	.7000000000E+02	NUMERIC
100	% CONFIDENCE	.7000000000E+02	NUMERIC
101	% CONFIDENCE	.7000000000E+02	NUMERIC
102	% CONFIDENCE	.7000000000E+02	NUMERIC
103	% CONFIDENCE	.7000000000E+02	NUMERIC
104	% CONFIDENCE	.7000000000E+02	NUMERIC
105	% CONFIDENCE	.7000000000E+02	NUMERIC
106	% CONFIDENCE	.7000000000E+02	NUMERIC
107	% CONFIDENCE	.7000000000E+02	NUMERIC
108	% CONFIDENCE	.7000000000E+02	NUMERIC
109	% CONFIDENCE	.7000000000E+02	NUMERIC
110	% CONFIDENCE	.7000000000E+02	NUMERIC
111	% CONFIDENCE	.7000000000E+02	NUMERIC
112	% CONFIDENCE	.7000000000E+02	NUMERIC
113	% CONFIDENCE	.7000000000E+02	NUMERIC
114	% CONFIDENCE	.7000000000E+02	NUMERIC
115	% CONFIDENCE	.7000000000E+02	NUMERIC
116	% CONFIDENCE	.7000000000E+02	NUMERIC
117	% CONFIDENCE	.7000000000E+02	NUMERIC
118	% CONFIDENCE	.7000000000E+02	NUMERIC
119	% CONFIDENCE	.7000000000E+02	NUMERIC
120	% CONFIDENCE	.7000000000E+02	NUMERIC



## 3.12 Synop ship reduced

RDB type 1, subtype 19

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                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 198
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 1
    BUFR MESSAGE SUBTYPE             19
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             12
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                 19
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             12
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       47.40
    LONGITUDE 1                     -70.30
    IDENTIFIER                       VD2235
    TOTAL BUFR MESSAGE LENGTH        198
    DAY (RDB INSERTION)              1
    HOUR (RDB INSERTION)             11
    MINUTE (RDB INSERTION)           49
    SECOND (RDB INSERTION)           14
    DAY (MDB ARRIVAL)                1
    HOUR (MDB ARRIVAL)               11
    MINUTE (MDB ARRIVAL)             44
    SECOND (MDB ARRIVAL)             53
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      28
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 308004
    2 012005

```

3 010197  
4 222000  
5 101034  
6 031031  
7 001031  
8 001032  
9 101034  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 022042 SEA/WATER TEMPERATURE  
33 012005 WET BULB TEMPERATURE AT 2M  
34 010197 ANEMOMETER HEIGHT  
35 222000 QUALITY INFORMATION FOLLOW  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
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65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
71 001032 GENERATING APPLICATION  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE  
81 033007 % CONFIDENCE

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82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
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87 033007 % CONFIDENCE
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89 033007 % CONFIDENCE
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97 033007 % CONFIDENCE
98 033007 % CONFIDENCE
99 033007 % CONFIDENCE
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE

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STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

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1 SHIP OR MOBILE      0.1009000000E+04 CCITTIA5          VD2235
2 DIRECTION OF MO      MISSING DEGREE TRUE
3 SPEED OF MOTION      MISSING M/S
4 TYPE OF STATION      0.1000000000E+01 CODE TABLE 2001
5 YEAR                0.2001000000E+04 YEAR
6 MONTH              0.2000000000E+01 MONTH
7 DAY                0.1000000000E+01 DAY
8 HOUR              0.1200000000E+02 HOUR
9 MINUTE            0.0000000000E+00 MINUTE
10 LATITUDE (COARS    0.4740000000E+02 DEGREE
11 LONGITUDE (COAR   -0.7030000000E+02 DEGREE
12 PRESSURE          MISSING PA
13 PRESSURE REDUCE    0.1015000000E+06 PA
14 3 HOUR PRESSURE    MISSING PA
15 CHARACTERISTIC      MISSING CODE TABLE 10063
16 WIND DIRECTION      0.3000000000E+02 DEGREE TRUE
17 WIND SPEED AT 1     0.2000000000E+01 M/S
18 DRY BULB TEMPER     0.2652000000E+03 K
19 DEW POINT TEMPE     MISSING K
20 RELATIVE HUMIDI     MISSING %
21 HORIZONTAL VISI     0.1000000000E+05 M
22 PRESENT WEATHER     MISSING CODE TABLE 20003
23 PAST WEATHER (1     MISSING CODE TABLE 20004
24 PAST WEATHER (2     MISSING CODE TABLE 20005
25 CLOUD COVER (TO     MISSING %
26 VERTICAL SIGNIF     0.1000000000E+01 CODE TABLE 8002
27 CLOUD AMOUNT        MISSING CODE TABLE 20011
28 HEIGHT OF BASE      MISSING M
29 CLOUD TYPE          0.6200000000E+02 CODE TABLE 20012
30 CLOUD TYPE          0.6100000000E+02 CODE TABLE 20012
31 CLOUD TYPE          0.6000000000E+02 CODE TABLE 20012
32 SEA/WATER TEMPE     MISSING K
33 WET BULB TEMPER     MISSING K
34 ANEMOMETER HEIG     MISSING M
35 QUALITY INFORMA     0.0000000000E+00
36 DATA PRESENT IN    0.0000000000E+00 NUMERIC
37 DATA PRESENT IN    0.0000000000E+00 NUMERIC
38 DATA PRESENT IN    0.0000000000E+00 NUMERIC
39 DATA PRESENT IN    0.0000000000E+00 NUMERIC
40 DATA PRESENT IN    0.0000000000E+00 NUMERIC
41 DATA PRESENT IN    0.0000000000E+00 NUMERIC
42 DATA PRESENT IN    0.0000000000E+00 NUMERIC
43 DATA PRESENT IN    0.0000000000E+00 NUMERIC
44 DATA PRESENT IN    0.0000000000E+00 NUMERIC
45 DATA PRESENT IN    0.0000000000E+00 NUMERIC
46 DATA PRESENT IN    0.0000000000E+00 NUMERIC
47 DATA PRESENT IN    0.0000000000E+00 NUMERIC
48 DATA PRESENT IN    0.0000000000E+00 NUMERIC
49 DATA PRESENT IN    0.0000000000E+00 NUMERIC
50 DATA PRESENT IN    0.0000000000E+00 NUMERIC
51 DATA PRESENT IN    0.0000000000E+00 NUMERIC
52 DATA PRESENT IN    0.0000000000E+00 NUMERIC
53 DATA PRESENT IN    0.0000000000E+00 NUMERIC
54 DATA PRESENT IN    0.0000000000E+00 NUMERIC
55 DATA PRESENT IN    0.0000000000E+00 NUMERIC
56 DATA PRESENT IN    0.0000000000E+00 NUMERIC
57 DATA PRESENT IN    0.0000000000E+00 NUMERIC
58 DATA PRESENT IN    0.0000000000E+00 NUMERIC
59 DATA PRESENT IN    0.0000000000E+00 NUMERIC
60 DATA PRESENT IN    0.0000000000E+00 NUMERIC
61 DATA PRESENT IN    0.0000000000E+00 NUMERIC
62 DATA PRESENT IN    0.0000000000E+00 NUMERIC
63 DATA PRESENT IN    0.0000000000E+00 NUMERIC
64 DATA PRESENT IN    0.0000000000E+00 NUMERIC
65 DATA PRESENT IN    0.0000000000E+00 NUMERIC

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66	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
71	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.7000000000E+02	NUMERIC	
82	% CONFIDENCE	0.7000000000E+02	NUMERIC	
83	% CONFIDENCE	0.7000000000E+02	NUMERIC	
84	% CONFIDENCE	0.7000000000E+02	NUMERIC	
85	% CONFIDENCE	0.7000000000E+02	NUMERIC	
86	% CONFIDENCE	0.7000000000E+02	NUMERIC	
87	% CONFIDENCE	0.7000000000E+02	NUMERIC	
88	% CONFIDENCE	0.7000000000E+02	NUMERIC	
89	% CONFIDENCE	0.7000000000E+02	NUMERIC	
90	% CONFIDENCE	0.7000000000E+02	NUMERIC	
91	% CONFIDENCE	0.7000000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.7000000000E+02	NUMERIC	
94	% CONFIDENCE	0.7000000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7000000000E+02	NUMERIC	
98	% CONFIDENCE	0.7000000000E+02	NUMERIC	
99	% CONFIDENCE	0.7000000000E+02	NUMERIC	
100	% CONFIDENCE	0.7500000000E+02	NUMERIC	
101	% CONFIDENCE	0.7900000000E+02	NUMERIC	
102	% CONFIDENCE	0.7900000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	

## 3.13 Drifter

RDB type 1, subtype 21

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 182
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE              98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)    128
    BUFR MESSAGE TYPE                1
    BUFR MESSAGE SUBTYPE            21
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             9
    MINUTE                           11
    VERSION NUMBER OF MASTER TABLE   6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   1
    RDB DATA SUBTYPE                 21
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                              9
    MINUTE                           11
    SECOND                            0
    LATITUDE 1                        59.03
    LONGITUDE 1                      -29.99
    IDENTIFIER                        65602
    TOTAL BUFR MESSAGE LENGTH        182
    DAY (RDB INSERTION)               1
    HOUR (RDB INSERTION)              9
    MINUTE (RDB INSERTION)            32
    SECOND (RDB INSERTION)            50
    DAY (MDB ARRIVAL)                 1
    HOUR (MDB ARRIVAL)                9
    MINUTE (MDB ARRIVAL)              31
    SECOND (MDB ARRIVAL)              32
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      24
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 308003
    2 222000

```

3 101032  
4 031031  
5 001031  
6 001201  
7 101032  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001005 BUOY/PLATFORM IDENTIFIER  
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
4 002001 TYPE OF STATION  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005002 LATITUDE (COARSE ACCURACY)  
11 006002 LONGITUDE (COARSE ACCURACY)  
12 010004 PRESSURE  
13 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
14 010061 3 HOUR PRESSURE CHANGE  
15 010063 CHARACTERISTIC OF PRESSURE TENDENCY  
16 011011 WIND DIRECTION AT 10 M  
17 011012 WIND SPEED AT 10 M  
18 012004 DRY BULB TEMPERATURE AT 2M  
19 012006 DEW POINT TEMPERATURE AT 2M  
20 013003 RELATIVE HUMIDITY  
21 020001 HORIZONTAL VISIBILITY  
22 020003 PRESENT WEATHER  
23 020004 PAST WEATHER (1)  
24 020005 PAST WEATHER (2)  
25 020010 CLOUD COVER (TOTAL)  
26 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
27 020011 CLOUD AMOUNT  
28 020013 HEIGHT OF BASE OF CLOUD  
29 020012 CLOUD TYPE  
30 020012 CLOUD TYPE  
31 020012 CLOUD TYPE  
32 022042 SEA/WATER TEMPERATURE  
33 222000 QUALITY INFORMATION FOLLOW  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
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45 031031 DATA PRESENT INDICATOR  
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61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
63 031031 DATA PRESENT INDICATOR  
64 031031 DATA PRESENT INDICATOR  
65 031031 DATA PRESENT INDICATOR  
66 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
67 001201 GENERATING APPLICATION  
68 033007 % CONFIDENCE  
69 033007 % CONFIDENCE  
70 033007 % CONFIDENCE  
71 033007 % CONFIDENCE  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE  
81 033007 % CONFIDENCE  
82 033007 % CONFIDENCE  
83 033007 % CONFIDENCE

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84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
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88 033007 % CONFIDENCE
89 033007 % CONFIDENCE
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93 033007 % CONFIDENCE
94 033007 % CONFIDENCE
95 033007 % CONFIDENCE
96 033007 % CONFIDENCE
97 033007 % CONFIDENCE
98 033007 % CONFIDENCE
99 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 BUOY/PLATFORM I 0.6560200000E+05 NUMERIC
2 DIRECTION OF MO MISSING DEGREE TRUE
3 SPEED OF MOTION MISSING M/S
4 TYPE OF STATION 0.0000000000E+00 CODE TABLE 2001
5 YEAR 0.2001000000E+04 YEAR
6 MONTH 0.2000000000E+01 MONTH
7 DAY 0.1000000000E+01 DAY
8 HOUR 0.9000000000E+01 HOUR
9 MINUTE 0.1100000000E+02 MINUTE
10 LATITUDE (COARS 0.5903000000E+02 DEGREE
11 LONGITUDE (COAR -0.2999000000E+02 DEGREE
12 PRESSURE 0.9952000000E+05 PA
13 PRESSURE REDUCE 0.9952000000E+05 PA
14 3 HOUR PRESSURE 0.3100000000E+03 PA
15 CHARACTERISTIC 0.7000000000E+01 CODE TABLE 10063
16 WIND DIRECTION MISSING DEGREE TRUE
17 WIND SPEED AT 1 MISSING M/S
18 DRY BULB TEMPER 0.2785000000E+03 K
19 DEW POINT TEMPE MISSING K
20 RELATIVE HUMIDI MISSING %
21 HORIZONTAL VISI MISSING M
22 PRESENT WEATHER MISSING CODE TABLE 20003
23 PAST WEATHER (1 MISSING CODE TABLE 20004
24 PAST WEATHER (2 MISSING CODE TABLE 20005
25 CLOUD COVER (TO MISSING %
26 VERTICAL SIGNIF MISSING CODE TABLE 8002
27 CLOUD AMOUNT MISSING CODE TABLE 20011
28 HEIGHT OF BASE MISSING M
29 CLOUD TYPE MISSING CODE TABLE 20012
30 CLOUD TYPE MISSING CODE TABLE 20012
31 CLOUD TYPE MISSING CODE TABLE 20012
32 SEA/WATER TEMPE 0.2808000000E+03 K
33 QUALITY INFORMA 0.0000000000E+00
34 DATA PRESENT IN 0.0000000000E+00 NUMERIC
35 DATA PRESENT IN 0.0000000000E+00 NUMERIC
36 DATA PRESENT IN 0.0000000000E+00 NUMERIC
37 DATA PRESENT IN 0.0000000000E+00 NUMERIC
38 DATA PRESENT IN 0.0000000000E+00 NUMERIC
39 DATA PRESENT IN 0.0000000000E+00 NUMERIC
40 DATA PRESENT IN 0.0000000000E+00 NUMERIC
41 DATA PRESENT IN 0.0000000000E+00 NUMERIC
42 DATA PRESENT IN 0.0000000000E+00 NUMERIC
43 DATA PRESENT IN 0.0000000000E+00 NUMERIC
44 DATA PRESENT IN 0.0000000000E+00 NUMERIC
45 DATA PRESENT IN 0.0000000000E+00 NUMERIC
46 DATA PRESENT IN 0.0000000000E+00 NUMERIC
47 DATA PRESENT IN 0.0000000000E+00 NUMERIC
48 DATA PRESENT IN 0.0000000000E+00 NUMERIC
49 DATA PRESENT IN 0.0000000000E+00 NUMERIC
50 DATA PRESENT IN 0.0000000000E+00 NUMERIC
51 DATA PRESENT IN 0.0000000000E+00 NUMERIC
52 DATA PRESENT IN 0.0000000000E+00 NUMERIC
53 DATA PRESENT IN 0.0000000000E+00 NUMERIC
54 DATA PRESENT IN 0.0000000000E+00 NUMERIC
55 DATA PRESENT IN 0.0000000000E+00 NUMERIC
56 DATA PRESENT IN 0.0000000000E+00 NUMERIC
57 DATA PRESENT IN 0.0000000000E+00 NUMERIC
58 DATA PRESENT IN 0.0000000000E+00 NUMERIC
59 DATA PRESENT IN 0.0000000000E+00 NUMERIC
60 DATA PRESENT IN 0.0000000000E+00 NUMERIC
61 DATA PRESENT IN 0.0000000000E+00 NUMERIC
62 DATA PRESENT IN 0.0000000000E+00 NUMERIC
63 DATA PRESENT IN 0.0000000000E+00 NUMERIC
64 DATA PRESENT IN 0.0000000000E+00 NUMERIC
65 DATA PRESENT IN 0.0000000000E+00 NUMERIC
66 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
67 GENERATING APPL 0.1000000000E+01 CODE TABLE 1201
68 % CONFIDENCE 0.7000000000E+02 NUMERIC
69 % CONFIDENCE 0.7000000000E+02 NUMERIC
70 % CONFIDENCE 0.7000000000E+02 NUMERIC
71 % CONFIDENCE 0.7000000000E+02 NUMERIC
72 % CONFIDENCE 0.7000000000E+02 NUMERIC
73 % CONFIDENCE 0.7000000000E+02 NUMERIC
74 % CONFIDENCE 0.7000000000E+02 NUMERIC

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75	%	CONFIDENCE	0.7000000000E+02	NUMERIC
76	%	CONFIDENCE	0.7000000000E+02	NUMERIC
77	%	CONFIDENCE	0.7000000000E+02	NUMERIC
78	%	CONFIDENCE	0.7000000000E+02	NUMERIC
79	%	CONFIDENCE	0.7000000000E+02	NUMERIC
80	%	CONFIDENCE	0.7000000000E+02	NUMERIC
81	%	CONFIDENCE	0.7700000000E+02	NUMERIC
82	%	CONFIDENCE	0.7900000000E+02	NUMERIC
83	%	CONFIDENCE	0.7000000000E+02	NUMERIC
84	%	CONFIDENCE	0.7000000000E+02	NUMERIC
85	%	CONFIDENCE	0.7000000000E+02	NUMERIC
86	%	CONFIDENCE	0.7000000000E+02	NUMERIC
87	%	CONFIDENCE	0.7000000000E+02	NUMERIC
88	%	CONFIDENCE	0.7000000000E+02	NUMERIC
89	%	CONFIDENCE	0.7000000000E+02	NUMERIC
90	%	CONFIDENCE	0.7000000000E+02	NUMERIC
91	%	CONFIDENCE	0.7000000000E+02	NUMERIC
92	%	CONFIDENCE	0.7000000000E+02	NUMERIC
93	%	CONFIDENCE	0.7000000000E+02	NUMERIC
94	%	CONFIDENCE	0.7000000000E+02	NUMERIC
95	%	CONFIDENCE	0.7000000000E+02	NUMERIC
96	%	CONFIDENCE	0.7000000000E+02	NUMERIC
97	%	CONFIDENCE	0.7000000000E+02	NUMERIC
98	%	CONFIDENCE	0.7000000000E+02	NUMERIC
99	%	CONFIDENCE	0.7000000000E+02	NUMERIC



## 3.14 Satem 500 km low level

RDB type 2, subtype 61

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ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 260
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 3
    BUFR MESSAGE SUBTYPE              61
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             11
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    2
    RDB DATA SUBTYPE                  61
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                              11
    MINUTE                            0
    SECOND                            0
    LATITUDE 1                        0.00
    LONGITUDE 1                       74.00
    LATITUDE 2                        0.00
    LONGITUDE 2                       74.00
    NUMBER OF OBSERVATIONS             1
    IDENTIFIER                         239
    TOTAL BUFR MESSAGE LENGTH          260
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               14
    MINUTE (RDB INSERTION)             25
    SECOND (RDB INSERTION)             52
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                 14
    MINUTE (MDB ARRIVAL)               23
    SECOND (MDB ARRIVAL)               56
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      24
    RESERVED                          0
    NUMBER OF DATA SUBSETS            1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

```

1 310002  
2 222000  
3 101063  
4 031031  
5 001031  
6 001032  
7 101063  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
3 002022 SATELLITE DATA PROCESSING TECHNIQUE USED  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007004 PRESSURE  
12 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
13 007021 ELEVATION  
14 007022 SOLAR ELEVATION  
15 008012 LAND/SEA QUALIFIER  
16 012061 SKIN TEMPERATURE  
17 020011 CLOUD AMOUNT  
18 020016 PRESSURE AT TOP OF CLOUD  
19 007004 PRESSURE  
20 007004 PRESSURE  
21 031021 ASSOCIATED FIELD SIGNIFICANCE  
22 999999 ASSOCIATED FIELD  
23 012001 TEMPERATURE/DRY BULB TEMPERATURE  
24 007004 PRESSURE  
25 007004 PRESSURE  
26 031021 ASSOCIATED FIELD SIGNIFICANCE  
27 999999 ASSOCIATED FIELD  
28 012001 TEMPERATURE/DRY BULB TEMPERATURE  
29 007004 PRESSURE  
30 007004 PRESSURE  
31 031021 ASSOCIATED FIELD SIGNIFICANCE  
32 999999 ASSOCIATED FIELD  
33 012001 TEMPERATURE/DRY BULB TEMPERATURE  
34 007004 PRESSURE  
35 007004 PRESSURE  
36 031021 ASSOCIATED FIELD SIGNIFICANCE  
37 999999 ASSOCIATED FIELD  
38 012001 TEMPERATURE/DRY BULB TEMPERATURE  
39 007004 PRESSURE  
40 007004 PRESSURE  
41 031021 ASSOCIATED FIELD SIGNIFICANCE  
42 999999 ASSOCIATED FIELD  
43 012001 TEMPERATURE/DRY BULB TEMPERATURE  
44 007004 PRESSURE  
45 007004 PRESSURE  
46 031021 ASSOCIATED FIELD SIGNIFICANCE  
47 999999 ASSOCIATED FIELD  
48 012001 TEMPERATURE/DRY BULB TEMPERATURE  
49 007004 PRESSURE  
50 007004 PRESSURE  
51 031021 ASSOCIATED FIELD SIGNIFICANCE  
52 999999 ASSOCIATED FIELD  
53 012001 TEMPERATURE/DRY BULB TEMPERATURE  
54 007004 PRESSURE  
55 007004 PRESSURE  
56 031021 ASSOCIATED FIELD SIGNIFICANCE  
57 999999 ASSOCIATED FIELD  
58 012001 TEMPERATURE/DRY BULB TEMPERATURE  
59 007004 PRESSURE  
60 007004 PRESSURE  
61 031021 ASSOCIATED FIELD SIGNIFICANCE  
62 999999 ASSOCIATED FIELD  
63 012001 TEMPERATURE/DRY BULB TEMPERATURE  
64 222000 QUALITY INFORMATION FOLLOW  
65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 031031 DATA PRESENT INDICATOR  
69 031031 DATA PRESENT INDICATOR  
70 031031 DATA PRESENT INDICATOR  
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125 031031 DATA PRESENT INDICATOR
126 031031 DATA PRESENT INDICATOR
127 031031 DATA PRESENT INDICATOR
128 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
129 001032 GENERATING APPLICATION
130 033007 % CONFIDENCE
131 033007 % CONFIDENCE
132 033007 % CONFIDENCE
133 033007 % CONFIDENCE
134 033007 % CONFIDENCE
135 033007 % CONFIDENCE
136 033007 % CONFIDENCE
137 033007 % CONFIDENCE
138 033007 % CONFIDENCE
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170 033007 % CONFIDENCE
171 033007 % CONFIDENCE
172 033007 % CONFIDENCE
173 033007 % CONFIDENCE
174 033007 % CONFIDENCE
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175 033007 % CONFIDENCE  
176 033007 % CONFIDENCE  
177 033007 % CONFIDENCE  
178 033007 % CONFIDENCE  
179 033007 % CONFIDENCE  
180 033007 % CONFIDENCE  
181 033007 % CONFIDENCE  
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184 033007 % CONFIDENCE  
185 033007 % CONFIDENCE  
186 033007 % CONFIDENCE  
187 033007 % CONFIDENCE  
188 033007 % CONFIDENCE  
189 033007 % CONFIDENCE  
190 033007 % CONFIDENCE  
191 033007 % CONFIDENCE  
192 033007 % CONFIDENCE

STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

1	SATELLITE IDENT	0.2390000000E+03	CODE TABLE	1007
2	SATELLITE INSTR	0.4480000000E+03	FLAG TABLE	2021
3	SATELLITE DATA	0.8000000000E+01	FLAG TABLE	2022
4	YEAR	0.2001000000E+04	YEAR	
5	MONTH	0.2000000000E+01	MONTH	
6	DAY	0.1000000000E+01	DAY	
7	HOUR	0.1100000000E+02	HOUR	
8	MINUTE	0.0000000000E+00	MINUTE	
9	LATITUDE (HIGH	0.0000000000E+00	DEGREE	
10	LONGITUDE (HIGH	0.7400000000E+02	DEGREE	
11	PRESSURE	0.1000000000E+06	PA	
12	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8003
13	ELEVATION		MISSING DEGREE	
14	SOLAR ELEVATION		MISSING DEGREE	
15	LAND/SEA QUALIF		MISSING CODE TABLE	8012
16	SKIN TEMPERATUR	0.2760000000E+03	K	
17	CLOUD AMOUNT	0.0000000000E+00	CODE TABLE	20011
18	PRESSURE AT TOP	0.2500000000E+05	PA	
19	PRESSURE	0.1000000000E+06	PA	
20	PRESSURE	0.8500000000E+05	PA	
21	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
22	ASSOCIATED FIEL	0.0000000000E+00		
23	TEMPERATURE/DRY	0.2964000000E+03	K	
24	PRESSURE	0.8500000000E+05	PA	
25	PRESSURE	0.7000000000E+05	PA	
26	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
27	ASSOCIATED FIEL	0.0000000000E+00		
28	TEMPERATURE/DRY	0.2886000000E+03	K	
29	PRESSURE	0.7000000000E+05	PA	
30	PRESSURE	0.5000000000E+05	PA	
31	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
32	ASSOCIATED FIEL	0.0000000000E+00		
33	TEMPERATURE/DRY	0.2752000000E+03	K	
34	PRESSURE	0.5000000000E+05	PA	
35	PRESSURE	0.4000000000E+05	PA	
36	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
37	ASSOCIATED FIEL	0.0000000000E+00		
38	TEMPERATURE/DRY	0.2618000000E+03	K	
39	PRESSURE	0.4000000000E+05	PA	
40	PRESSURE	0.3000000000E+05	PA	
41	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
42	ASSOCIATED FIEL	0.0000000000E+00		
43	TEMPERATURE/DRY	0.2494000000E+03	K	
44	PRESSURE	0.3000000000E+05	PA	
45	PRESSURE	0.2000000000E+05	PA	
46	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
47	ASSOCIATED FIEL	0.0000000000E+00		
48	TEMPERATURE/DRY	0.2309000000E+03	K	
49	PRESSURE	0.2000000000E+05	PA	
50	PRESSURE	0.1000000000E+05	PA	
51	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
52	ASSOCIATED FIEL	0.0000000000E+00		
53	TEMPERATURE/DRY	0.2036000000E+03	K	
54	PRESSURE	0.1000000000E+05	PA	
55	PRESSURE	0.7000000000E+04	PA	
56	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
57	ASSOCIATED FIEL	0.0000000000E+00		
58	TEMPERATURE/DRY	0.1916000000E+03	K	
59	PRESSURE	0.7000000000E+04	PA	
60	PRESSURE	0.5000000000E+04	PA	
61	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
62	ASSOCIATED FIEL	0.0000000000E+00		
63	TEMPERATURE/DRY	0.2000000000E+03	K	
64	QUALITY INFORMA	0.0000000000E+00		
65	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
66	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
71	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
72	DATA PRESENT IN	0.0000000000E+00	NUMERIC	

ECMWF Technical Notes

166	%	CONFIDENCE	0.7000000000E+02	NUMERIC
167	%	CONFIDENCE	0.7000000000E+02	NUMERIC
168	%	CONFIDENCE	0.7500000000E+02	NUMERIC
169	%	CONFIDENCE	0.7500000000E+02	NUMERIC
170	%	CONFIDENCE	0.7000000000E+02	NUMERIC
171	%	CONFIDENCE	0.7000000000E+02	NUMERIC
172	%	CONFIDENCE	0.7000000000E+02	NUMERIC
173	%	CONFIDENCE	0.7500000000E+02	NUMERIC
174	%	CONFIDENCE	0.7500000000E+02	NUMERIC
175	%	CONFIDENCE	0.7000000000E+02	NUMERIC
176	%	CONFIDENCE	0.7000000000E+02	NUMERIC
177	%	CONFIDENCE	0.7000000000E+02	NUMERIC
178	%	CONFIDENCE	0.7500000000E+02	NUMERIC
179	%	CONFIDENCE	0.7500000000E+02	NUMERIC
180	%	CONFIDENCE	0.7000000000E+02	NUMERIC
181	%	CONFIDENCE	0.7000000000E+02	NUMERIC
182	%	CONFIDENCE	0.7000000000E+02	NUMERIC
183	%	CONFIDENCE	0.7500000000E+02	NUMERIC
184	%	CONFIDENCE	0.7500000000E+02	NUMERIC
185	%	CONFIDENCE	0.7000000000E+02	NUMERIC
186	%	CONFIDENCE	0.7000000000E+02	NUMERIC
187	%	CONFIDENCE	0.7000000000E+02	NUMERIC
188	%	CONFIDENCE	0.7500000000E+02	NUMERIC
189	%	CONFIDENCE	0.7500000000E+02	NUMERIC
190	%	CONFIDENCE	0.7000000000E+02	NUMERIC
191	%	CONFIDENCE	0.7000000000E+02	NUMERIC
192	%	CONFIDENCE	0.7000000000E+02	NUMERIC

## 3.15 Satem 500 km precipitable water

RDB type 2, subtype 62

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 190
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                 0
    ORIGINATING CENTRE                     98
    UPDATE SEQUENCE NUMBER                 1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                      3
    BUFR MESSAGE SUBTYPE                   62
    VERSION NUMBER OF LOCAL TABLE         1
    YEAR                                  1
    MONTH                                 2
    DAY                                   1
    HOUR                                  11
    MINUTE                                0
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                    0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                   52

    REPORT DATA BASE KEY

    RDB DATA TYPE                        2
    RDB DATA SUBTYPE                     62
    YEAR                                  2001
    MONTH                                 2
    DAY                                   1
    HOUR                                  11
    MINUTE                                0
    SECOND                                0
    LATITUDE 1                           0.00
    LONGITUDE 1                           74.00
    LATITUDE 2                           0.00
    LONGITUDE 2                           74.00
    NUMBER OF OBSERVATIONS                 1
    IDENTIFIER                             239
    TOTAL BUFR MESSAGE LENGTH             190
    DAY (RDB INSERTION)                    1
    HOUR (RDB INSERTION)                   14
    MINUTE (RDB INSERTION)                 25
    SECOND (RDB INSERTION)                 53
    DAY (MDB ARRIVAL)                      1
    HOUR (MDB ARRIVAL)                     14
    MINUTE (MDB ARRIVAL)                   23
    SECOND (MDB ARRIVAL)                   56
    CORRECTION NUMBER                     0
    PART OF MESSAGE                        1
    CORRECTION NUMBER                     0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                        0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                        0
    QUALITY CONTROL % CONF                 70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)           24
    RESERVED                               0
    NUMBER OF DATA SUBSETS                 1
    FLAG (DATA TYPE/DATA COMPRESSION)      128

    DATA DESCRIPTORS (UNEXPANDED)

```

1 310004  
2 222000  
3 101033  
4 031031  
5 001031  
6 001032  
7 101033  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
3 002022 SATELLITE DATA PROCESSING TECHNIQUE USED  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007004 PRESSURE  
12 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
13 007021 ELEVATION  
14 007022 SOLAR ELEVATION  
15 008012 LAND/SEA QUALIFIER  
16 012061 SKIN TEMPERATURE  
17 020011 CLOUD AMOUNT  
18 020016 PRESSURE AT TOP OF CLOUD  
19 007004 PRESSURE  
20 007004 PRESSURE  
21 031021 ASSOCIATED FIELD SIGNIFICANCE  
22 999999 ASSOCIATED FIELD  
23 013016 PRECIPITABLE WATER  
24 007004 PRESSURE  
25 007004 PRESSURE  
26 031021 ASSOCIATED FIELD SIGNIFICANCE  
27 999999 ASSOCIATED FIELD  
28 013016 PRECIPITABLE WATER  
29 007004 PRESSURE  
30 007004 PRESSURE  
31 031021 ASSOCIATED FIELD SIGNIFICANCE  
32 999999 ASSOCIATED FIELD  
33 013016 PRECIPITABLE WATER  
34 222000 QUALITY INFORMATION FOLLOW  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
50 031031 DATA PRESENT INDICATOR  
51 031031 DATA PRESENT INDICATOR  
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61 031031 DATA PRESENT INDICATOR  
62 031031 DATA PRESENT INDICATOR  
63 031031 DATA PRESENT INDICATOR  
64 031031 DATA PRESENT INDICATOR  
65 031031 DATA PRESENT INDICATOR  
66 031031 DATA PRESENT INDICATOR  
67 031031 DATA PRESENT INDICATOR  
68 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
69 001032 GENERATING APPLICATION  
70 033007 % CONFIDENCE  
71 033007 % CONFIDENCE  
72 033007 % CONFIDENCE  
73 033007 % CONFIDENCE  
74 033007 % CONFIDENCE  
75 033007 % CONFIDENCE  
76 033007 % CONFIDENCE  
77 033007 % CONFIDENCE  
78 033007 % CONFIDENCE  
79 033007 % CONFIDENCE  
80 033007 % CONFIDENCE



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81 033007 % CONFIDENCE
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
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89 033007 % CONFIDENCE
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94 033007 % CONFIDENCE
95 033007 % CONFIDENCE
96 033007 % CONFIDENCE
97 033007 % CONFIDENCE
98 033007 % CONFIDENCE
99 033007 % CONFIDENCE
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

 1 SATELLITE IDENT      0.2390000000E+03 CODE TABLE 1007
 2 SATELLITE INSTR     0.4480000000E+03 FLAG TABLE 2021
 3 SATELLITE DATA      0.8000000000E+01 FLAG TABLE 2022
 4 YEAR                 0.2001000000E+04 YEAR
 5 MONTH                0.2000000000E+01 MONTH
 6 DAY                  0.1000000000E+01 DAY
 7 HOUR                 0.1100000000E+02 HOUR
 8 MINUTE               0.0000000000E+00 MINUTE
 9 LATITUDE (HIGH)     0.0000000000E+00 DEGREE
10 LONGITUDE (HIGH)    0.7400000000E+02 DEGREE
11 PRESSURE             0.1000000000E+06 PA
12 VERTICAL SIGNIF     0.1000000000E+01 CODE TABLE 8003
13 ELEVATION            MISSING DEGREE
14 SOLAR ELEVATION      MISSING DEGREE
15 LAND/SEA QUALIF      MISSING CODE TABLE 8012
16 SKIN TEMPERATUR     0.2760000000E+03 K
17 CLOUD AMOUNT         0.0000000000E+00 CODE TABLE 20011
18 PRESSURE AT TOP      0.2500000000E+05 PA
19 PRESSURE             0.1000000000E+06 PA
20 PRESSURE             0.7000000000E+05 PA
21 ASSOCIATED FIEL      0.7000000000E+01 CODE TABLE 31021
22 ASSOCIATED FIEL      0.0000000000E+00
23 PRECIPITABLE WA      0.3400000000E+02 KG/M**2
24 PRESSURE             0.7000000000E+05 PA
25 PRESSURE             0.5000000000E+05 PA
26 ASSOCIATED FIEL      0.7000000000E+01 CODE TABLE 31021
27 ASSOCIATED FIEL      0.0000000000E+00
28 PRECIPITABLE WA      0.1000000000E+02 KG/M**2
29 PRESSURE             0.5000000000E+05 PA
30 PRESSURE             0.3000000000E+05 PA
31 ASSOCIATED FIEL      0.7000000000E+01 CODE TABLE 31021
32 ASSOCIATED FIEL      0.0000000000E+00
33 PRECIPITABLE WA      0.2000000000E+01 KG/M**2
34 QUALITY INFORMA      0.0000000000E+00
35 DATA PRESENT IN     0.0000000000E+00 NUMERIC
36 DATA PRESENT IN     0.0000000000E+00 NUMERIC
37 DATA PRESENT IN     0.0000000000E+00 NUMERIC
38 DATA PRESENT IN     0.0000000000E+00 NUMERIC
39 DATA PRESENT IN     0.0000000000E+00 NUMERIC
40 DATA PRESENT IN     0.0000000000E+00 NUMERIC
41 DATA PRESENT IN     0.0000000000E+00 NUMERIC
42 DATA PRESENT IN     0.0000000000E+00 NUMERIC
43 DATA PRESENT IN     0.0000000000E+00 NUMERIC
44 DATA PRESENT IN     0.0000000000E+00 NUMERIC
45 DATA PRESENT IN     0.0000000000E+00 NUMERIC
46 DATA PRESENT IN     0.0000000000E+00 NUMERIC
47 DATA PRESENT IN     0.0000000000E+00 NUMERIC
48 DATA PRESENT IN     0.0000000000E+00 NUMERIC
49 DATA PRESENT IN     0.0000000000E+00 NUMERIC
50 DATA PRESENT IN     0.0000000000E+00 NUMERIC
51 DATA PRESENT IN     0.0000000000E+00 NUMERIC
52 DATA PRESENT IN     0.0000000000E+00 NUMERIC
53 DATA PRESENT IN     0.0000000000E+00 NUMERIC
54 DATA PRESENT IN     0.0000000000E+00 NUMERIC
55 DATA PRESENT IN     0.0000000000E+00 NUMERIC
56 DATA PRESENT IN     0.0000000000E+00 NUMERIC
57 DATA PRESENT IN     0.0000000000E+00 NUMERIC
58 DATA PRESENT IN     0.0000000000E+00 NUMERIC
59 DATA PRESENT IN     0.0000000000E+00 NUMERIC
60 DATA PRESENT IN     0.0000000000E+00 NUMERIC
61 DATA PRESENT IN     0.0000000000E+00 NUMERIC
62 DATA PRESENT IN     0.0000000000E+00 NUMERIC
63 DATA PRESENT IN     0.0000000000E+00 NUMERIC
64 DATA PRESENT IN     0.0000000000E+00 NUMERIC
65 DATA PRESENT IN     0.0000000000E+00 NUMERIC
66 DATA PRESENT IN     0.0000000000E+00 NUMERIC
67 DATA PRESENT IN     0.0000000000E+00 NUMERIC

```

68	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
69	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
70	% CONFIDENCE	0.7000000000E+02	NUMERIC	
71	% CONFIDENCE	0.7000000000E+02	NUMERIC	
72	% CONFIDENCE	0.7000000000E+02	NUMERIC	
73	% CONFIDENCE	0.7000000000E+02	NUMERIC	
74	% CONFIDENCE	0.7000000000E+02	NUMERIC	
75	% CONFIDENCE	0.7000000000E+02	NUMERIC	
76	% CONFIDENCE	0.7000000000E+02	NUMERIC	
77	% CONFIDENCE	0.7000000000E+02	NUMERIC	
78	% CONFIDENCE	0.7000000000E+02	NUMERIC	
79	% CONFIDENCE	0.7000000000E+02	NUMERIC	
80	% CONFIDENCE	0.7000000000E+02	NUMERIC	
81	% CONFIDENCE	0.7000000000E+02	NUMERIC	
82	% CONFIDENCE	0.7000000000E+02	NUMERIC	
83	% CONFIDENCE	0.7000000000E+02	NUMERIC	
84	% CONFIDENCE	0.7000000000E+02	NUMERIC	
85	% CONFIDENCE	0.7000000000E+02	NUMERIC	
86	% CONFIDENCE	0.7000000000E+02	NUMERIC	
87	% CONFIDENCE	0.7000000000E+02	NUMERIC	
88	% CONFIDENCE	0.7500000000E+02	NUMERIC	
89	% CONFIDENCE	0.7500000000E+02	NUMERIC	
90	% CONFIDENCE	0.7000000000E+02	NUMERIC	
91	% CONFIDENCE	0.7000000000E+02	NUMERIC	
92	% CONFIDENCE	0.7000000000E+02	NUMERIC	
93	% CONFIDENCE	0.7500000000E+02	NUMERIC	
94	% CONFIDENCE	0.7500000000E+02	NUMERIC	
95	% CONFIDENCE	0.7000000000E+02	NUMERIC	
96	% CONFIDENCE	0.7000000000E+02	NUMERIC	
97	% CONFIDENCE	0.7000000000E+02	NUMERIC	
98	% CONFIDENCE	0.7500000000E+02	NUMERIC	
99	% CONFIDENCE	0.7500000000E+02	NUMERIC	
100	% CONFIDENCE	0.7000000000E+02	NUMERIC	
101	% CONFIDENCE	0.7000000000E+02	NUMERIC	
102	% CONFIDENCE	0.7000000000E+02	NUMERIC	

## 3.16 Satem 500 km low level

RDB type 2, subtype 63

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

```

```

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601

```

### BUFR SECTION 0

```

LENGTH OF SECTION 0 (BYTES)      8
TOTAL LENGTH OF BUFR MESSAGE (BYTES) 226
BUFR EDITION NUMBER              3

```

### BUFR SECTION 1

```

LENGTH OF SECTION 1 (BYTES)      18
BUFR EDITION NUMBER              3
ORIGINATING SUB-CENTRE           0
ORIGINATING CENTRE               98
UPDATE SEQUENCE NUMBER           1
FLAG (PRESENCE OF SECTION 2)     128
BUFR MESSAGE TYPE                 3
BUFR MESSAGE SUBTYPE             63
VERSION NUMBER OF LOCAL TABLE   1
YEAR                             1
MONTH                           2
DAY                             1
HOUR                            11
MINUTE                          0
VERSION NUMBER OF MASTER TABLE  6
BUFR MASTER TABLE              0

```

### BUFR SECTION 2

```

LENGTH OF SECTION 2              52

```

### REPORT DATA BASE KEY

```

RDB DATA TYPE                   2
RDB DATA SUBTYPE                63
YEAR                            2001
MONTH                           2
DAY                             1
HOUR                            11
MINUTE                          0
SECOND                          0
LATITUDE 1                       0.00
LONGITUDE 1                      74.00
LATITUDE 2                       0.00
LONGITUDE 2                      74.00
NUMBER OF OBSERVATIONS           1
IDENTIFIER                       239
TOTAL BUFR MESSAGE LENGTH        226
DAY (RDB INSERTION)              1
HOUR (RDB INSERTION)             14
MINUTE (RDB INSERTION)           25
SECOND (RDB INSERTION)           53
DAY (MDB ARRIVAL)                1
HOUR (MDB ARRIVAL)               14
MINUTE (MDB ARRIVAL)             23
SECOND (MDB ARRIVAL)             56
CORRECTION NUMBER                0
PART OF MESSAGE                  1
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
QUALITY CONTROL % CONF           70

```

### BUFR SECTION 3

```

LENGTH OF SECTION 3 (BYTES)      24
RESERVED                         0
NUMBER OF DATA SUBSETS           1
FLAG (DATA TYPE/DATA COMPRESSION) 128

```

```

DATA DESCRIPTORS (UNEXPANDED)

```

1 310003  
2 222000  
3 101048  
4 031031  
5 001031  
6 001032  
7 101048  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
3 002022 SATELLITE DATA PROCESSING TECHNIQUE USED  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005001 LATITUDE (HIGH ACCURACY)  
10 006001 LONGITUDE (HIGH ACCURACY)  
11 007004 PRESSURE  
12 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
13 007021 ELEVATION  
14 007022 SOLAR ELEVATION  
15 008012 LAND/SEA QUALIFIER  
16 012061 SKIN TEMPERATURE  
17 020011 CLOUD AMOUNT  
18 020016 PRESSURE AT TOP OF CLOUD  
19 007004 PRESSURE  
20 007004 PRESSURE  
21 031021 ASSOCIATED FIELD SIGNIFICANCE  
22 999999 ASSOCIATED FIELD  
23 012001 TEMPERATURE/DRY BULB TEMPERATURE  
24 007004 PRESSURE  
25 007004 PRESSURE  
26 031021 ASSOCIATED FIELD SIGNIFICANCE  
27 999999 ASSOCIATED FIELD  
28 012001 TEMPERATURE/DRY BULB TEMPERATURE  
29 007004 PRESSURE  
30 007004 PRESSURE  
31 031021 ASSOCIATED FIELD SIGNIFICANCE  
32 999999 ASSOCIATED FIELD  
33 012001 TEMPERATURE/DRY BULB TEMPERATURE  
34 007004 PRESSURE  
35 007004 PRESSURE  
36 031021 ASSOCIATED FIELD SIGNIFICANCE  
37 999999 ASSOCIATED FIELD  
38 012001 TEMPERATURE/DRY BULB TEMPERATURE  
39 007004 PRESSURE  
40 007004 PRESSURE  
41 031021 ASSOCIATED FIELD SIGNIFICANCE  
42 999999 ASSOCIATED FIELD  
43 012001 TEMPERATURE/DRY BULB TEMPERATURE  
44 007004 PRESSURE  
45 007004 PRESSURE  
46 031021 ASSOCIATED FIELD SIGNIFICANCE  
47 999999 ASSOCIATED FIELD  
48 012001 TEMPERATURE/DRY BULB TEMPERATURE  
49 222000 QUALITY INFORMATION FOLLOW  
50 031031 DATA PRESENT INDICATOR  
51 031031 DATA PRESENT INDICATOR  
52 031031 DATA PRESENT INDICATOR  
53 031031 DATA PRESENT INDICATOR  
54 031031 DATA PRESENT INDICATOR  
55 031031 DATA PRESENT INDICATOR  
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78 031031 DATA PRESENT INDICATOR  
79 031031 DATA PRESENT INDICATOR  
80 031031 DATA PRESENT INDICATOR

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81 031031 DATA PRESENT INDICATOR
82 031031 DATA PRESENT INDICATOR
83 031031 DATA PRESENT INDICATOR
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85 031031 DATA PRESENT INDICATOR
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87 031031 DATA PRESENT INDICATOR
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92 031031 DATA PRESENT INDICATOR
93 031031 DATA PRESENT INDICATOR
94 031031 DATA PRESENT INDICATOR
95 031031 DATA PRESENT INDICATOR
96 031031 DATA PRESENT INDICATOR
97 031031 DATA PRESENT INDICATOR
98 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
99 001032 GENERATING APPLICATION
100 033007 % CONFIDENCE
101 033007 % CONFIDENCE
102 033007 % CONFIDENCE
103 033007 % CONFIDENCE
104 033007 % CONFIDENCE
105 033007 % CONFIDENCE
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141 033007 % CONFIDENCE
142 033007 % CONFIDENCE
143 033007 % CONFIDENCE
144 033007 % CONFIDENCE
145 033007 % CONFIDENCE
146 033007 % CONFIDENCE
147 033007 % CONFIDENCE

```

STARTING SUBSET TO BE PRINTED : 1  
ENDING SUBSET TO BE PRINTED : 1

```

1 SATELLITE IDENT      0.2390000000E+03 CODE TABLE 1007
2 SATELLITE INSTR      0.4480000000E+03 FLAG TABLE 2021
3 SATELLITE DATA      0.8000000000E+01 FLAG TABLE 2022
4 YEAR                 0.2001000000E+04 YEAR
5 MONTH                0.2000000000E+01 MONTH
6 DAY                  0.1000000000E+01 DAY
7 HOUR                 0.1100000000E+02 HOUR
8 MINUTE               0.0000000000E+00 MINUTE
9 LATITUDE (HIGH)      0.0000000000E+00 DEGREE
10 LONGITUDE (HIGH)    0.7400000000E+02 DEGREE
11 PRESSURE             0.1000000000E+06 PA
12 VERTICAL SIGNIF     0.1000000000E+01 CODE TABLE 8003
13 ELEVATION            MISSING DEGREE
14 SOLAR ELEVATION      MISSING DEGREE
15 LAND/SEA QUALIF      MISSING CODE TABLE 8012
16 SKIN TEMPERATUR     0.2760000000E+03 K
17 CLOUD AMOUNT        0.0000000000E+00 CODE TABLE 20011
18 PRESSURE AT TOP      0.2500000000E+05 PA
19 PRESSURE             0.5000000000E+04 PA
20 PRESSURE            0.3000000000E+04 PA
21 ASSOCIATED FIEL     0.7000000000E+01 CODE TABLE 31021
22 ASSOCIATED FIEL     0.0000000000E+00

```

23	TEMPERATURE/DRY	0.2080000000E+03	K	
24	PRESSURE	0.3000000000E+04	PA	
25	PRESSURE	0.1000000000E+04	PA	
26	ASSOCIATED FIEL	0.7000000000E+01	CODE TABLE	31021
27	ASSOCIATED FIEL	0.0000000000E+00		
28	TEMPERATURE/DRY	0.2202000000E+03	K	
29	PRESSURE		MISSING PA	
30	PRESSURE		MISSING PA	
31	ASSOCIATED FIEL		MISSING CODE TABLE	31021
32	ASSOCIATED FIEL		MISSING	
33	TEMPERATURE/DRY		MISSING K	
34	PRESSURE		MISSING PA	
35	PRESSURE		MISSING PA	
36	ASSOCIATED FIEL		MISSING CODE TABLE	31021
37	ASSOCIATED FIEL		MISSING	
38	TEMPERATURE/DRY		MISSING K	
39	PRESSURE		MISSING PA	
40	PRESSURE		MISSING PA	
41	ASSOCIATED FIEL		MISSING CODE TABLE	31021
42	ASSOCIATED FIEL		MISSING	
43	TEMPERATURE/DRY		MISSING K	
44	PRESSURE		MISSING PA	
45	PRESSURE		MISSING PA	
46	ASSOCIATED FIEL		MISSING CODE TABLE	31021
47	ASSOCIATED FIEL		MISSING	
48	TEMPERATURE/DRY		MISSING K	
49	QUALITY INFORMA	0.0000000000E+00		
50	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
51	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
52	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
53	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
54	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
55	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
56	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
57	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
58	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
59	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
60	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
61	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
62	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
63	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
64	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
65	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
66	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
67	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
68	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
69	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
70	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
71	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
72	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
73	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
74	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
75	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
76	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
77	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
78	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
79	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
80	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
81	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
82	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
83	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
84	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
85	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
86	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
87	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
88	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
89	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
90	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
91	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
92	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
93	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
94	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
95	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
96	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
97	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
98	IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
99	GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
100	% CONFIDENCE	0.7000000000E+02	NUMERIC	
101	% CONFIDENCE	0.7000000000E+02	NUMERIC	
102	% CONFIDENCE	0.7000000000E+02	NUMERIC	
103	% CONFIDENCE	0.7000000000E+02	NUMERIC	
104	% CONFIDENCE	0.7000000000E+02	NUMERIC	
105	% CONFIDENCE	0.7000000000E+02	NUMERIC	
106	% CONFIDENCE	0.7000000000E+02	NUMERIC	
107	% CONFIDENCE	0.7000000000E+02	NUMERIC	
108	% CONFIDENCE	0.7000000000E+02	NUMERIC	
109	% CONFIDENCE	0.7000000000E+02	NUMERIC	
110	% CONFIDENCE	0.7000000000E+02	NUMERIC	
111	% CONFIDENCE	0.7000000000E+02	NUMERIC	
112	% CONFIDENCE	0.7000000000E+02	NUMERIC	
113	% CONFIDENCE	0.7000000000E+02	NUMERIC	
114	% CONFIDENCE	0.7000000000E+02	NUMERIC	
115	% CONFIDENCE	0.7000000000E+02	NUMERIC	

116	%	CONFIDENCE	0.7000000000E+02	NUMERIC
117	%	CONFIDENCE	0.7000000000E+02	NUMERIC
118	%	CONFIDENCE	0.7500000000E+02	NUMERIC
119	%	CONFIDENCE	0.7500000000E+02	NUMERIC
120	%	CONFIDENCE	0.7000000000E+02	NUMERIC
121	%	CONFIDENCE	0.7000000000E+02	NUMERIC
122	%	CONFIDENCE	0.7000000000E+02	NUMERIC
123	%	CONFIDENCE	0.7500000000E+02	NUMERIC
124	%	CONFIDENCE	0.7500000000E+02	NUMERIC
125	%	CONFIDENCE	0.7000000000E+02	NUMERIC
126	%	CONFIDENCE	0.7000000000E+02	NUMERIC
127	%	CONFIDENCE	0.7000000000E+02	NUMERIC
128	%	CONFIDENCE	0.7000000000E+02	NUMERIC
129	%	CONFIDENCE	0.7000000000E+02	NUMERIC
130	%	CONFIDENCE	0.7000000000E+02	NUMERIC
131	%	CONFIDENCE	0.7000000000E+02	NUMERIC
132	%	CONFIDENCE	0.7000000000E+02	NUMERIC
133	%	CONFIDENCE	0.7000000000E+02	NUMERIC
134	%	CONFIDENCE	0.7000000000E+02	NUMERIC
135	%	CONFIDENCE	0.7000000000E+02	NUMERIC
136	%	CONFIDENCE	0.7000000000E+02	NUMERIC
137	%	CONFIDENCE	0.7000000000E+02	NUMERIC
138	%	CONFIDENCE	0.7000000000E+02	NUMERIC
139	%	CONFIDENCE	0.7000000000E+02	NUMERIC
140	%	CONFIDENCE	0.7000000000E+02	NUMERIC
141	%	CONFIDENCE	0.7000000000E+02	NUMERIC
142	%	CONFIDENCE	0.7000000000E+02	NUMERIC
143	%	CONFIDENCE	0.7000000000E+02	NUMERIC
144	%	CONFIDENCE	0.7000000000E+02	NUMERIC
145	%	CONFIDENCE	0.7000000000E+02	NUMERIC
146	%	CONFIDENCE	0.7000000000E+02	NUMERIC
147	%	CONFIDENCE	0.7000000000E+02	NUMERIC

### 3.17 Satob wind

RDB type 3, subtype 82

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 414
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 5
    BUFR MESSAGE SUBTYPE              82
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               1
    HOUR                              11
    MINUTE                            0
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    3
    RDB DATA SUBTYPE                  82
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                              11
    MINUTE                            0
    SECOND                            0
    LATITUDE 1                        3.00
    LONGITUDE 1                       -8.00
    LATITUDE 2                        9.00
    LONGITUDE 2                       -2.00
    NUMBER OF OBSERVATIONS             8
    IDENTIFIER                         54
    TOTAL BUFR MESSAGE LENGTH          414
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               12
    MINUTE (RDB INSERTION)             14
    SECOND (RDB INSERTION)             27
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                12
    MINUTE (MDB ARRIVAL)              12
    SECOND (MDB ARRIVAL)              10
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)        26
    RESERVED                           0
    NUMBER OF DATA SUBSETS             8
    FLAG (DATA TYPE/DATA COMPRESSION)  128

    DATA DESCRIPTORS (UNEXPANDED)
```



```

1 301043
2 304001
3 222000
4 101015
5 031031
6 001031
7 001032
8 101015
9 033007

```

## DATA DESCRIPTORS (EXPANDED)

```

1 001007 SATELLITE IDENTIFIER
2 002023 SATELLITE DERIVED WIND COMPUTATION METHOD
3 004001 YEAR
4 004002 MONTH
5 004003 DAY
6 004004 HOUR
7 004005 MINUTE
8 004006 SECOND
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
12 010004 PRESSURE
13 012001 TEMPERATURE/DRY BULB TEMPERATURE
14 011001 WIND DIRECTION
15 011002 WIND SPEED
16 222000 QUALITY INFORMATION FOLLOW
17 031031 DATA PRESENT INDICATOR
18 031031 DATA PRESENT INDICATOR
19 031031 DATA PRESENT INDICATOR
20 031031 DATA PRESENT INDICATOR
21 031031 DATA PRESENT INDICATOR
22 031031 DATA PRESENT INDICATOR
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 031031 DATA PRESENT INDICATOR
27 031031 DATA PRESENT INDICATOR
28 031031 DATA PRESENT INDICATOR
29 031031 DATA PRESENT INDICATOR
30 031031 DATA PRESENT INDICATOR
31 031031 DATA PRESENT INDICATOR
32 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
33 001032 GENERATING APPLICATION
34 033007 % CONFIDENCE
35 033007 % CONFIDENCE
36 033007 % CONFIDENCE
37 033007 % CONFIDENCE
38 033007 % CONFIDENCE
39 033007 % CONFIDENCE
40 033007 % CONFIDENCE
41 033007 % CONFIDENCE
42 033007 % CONFIDENCE
43 033007 % CONFIDENCE
44 033007 % CONFIDENCE
45 033007 % CONFIDENCE
46 033007 % CONFIDENCE
47 033007 % CONFIDENCE
48 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

1 SATELLITE IDENT	0.5400000000E+02	CODE TABLE	1007
2 SATELLITE DERIV	0.1000000000E+01	CODE TABLE	2023
3 YEAR	0.2001000000E+04	YEAR	
4 MONTH	0.2000000000E+01	MONTH	
5 DAY	0.1000000000E+01	DAY	
6 HOUR	0.1100000000E+02	HOUR	
7 MINUTE	0.0000000000E+00	MINUTE	
8 SECOND	0.0000000000E+00	SECOND	
9 LATITUDE (HIGH	0.3000000000E+01	DEGREE	
10 LONGITUDE (HIGH	-0.7000000000E+01	DEGREE	
11 VERTICAL SIGNIF	0.2000000000E+01	CODE TABLE	8003
12 PRESSURE	0.3200000000E+05	PA	
13 TEMPERATURE/DRY	0.2453000000E+03	K	
14 WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
15 WIND SPEED	0.2100000000E+02	M/S	
16 QUALITY INFORMA	0.0000000000E+00		
17 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
18 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
19 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
20 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
21 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
22 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
23 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
24 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
25 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
26 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
27 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
28 DATA PRESENT IN	0.0000000000E+00	NUMERIC	



```
29 DATA PRESENT IN      0.0000000000E+00 NUMERIC
30 DATA PRESENT IN      0.0000000000E+00 NUMERIC
31 DATA PRESENT IN      0.0000000000E+00 NUMERIC
32 IDENTIFICATION        0.9800000000E+02 CODE TABLE 1031
33 GENERATING APPL       0.1000000000E+01 CODE TABLE 1032
34 % CONFIDENCE           0.7000000000E+02 NUMERIC
35 % CONFIDENCE           0.7000000000E+02 NUMERIC
36 % CONFIDENCE           0.7000000000E+02 NUMERIC
37 % CONFIDENCE           0.7000000000E+02 NUMERIC
38 % CONFIDENCE           0.7000000000E+02 NUMERIC
39 % CONFIDENCE           0.7000000000E+02 NUMERIC
40 % CONFIDENCE           0.7000000000E+02 NUMERIC
41 % CONFIDENCE           0.7000000000E+02 NUMERIC
42 % CONFIDENCE           0.7000000000E+02 NUMERIC
43 % CONFIDENCE           0.7000000000E+02 NUMERIC
44 % CONFIDENCE           0.7000000000E+02 NUMERIC
45 % CONFIDENCE           0.7900000000E+02 NUMERIC
46 % CONFIDENCE           0.7000000000E+02 NUMERIC
47 % CONFIDENCE           0.7000000000E+02 NUMERIC
48 % CONFIDENCE           0.7000000000E+02 NUMERIC
```

## 3.18 Satob wind and temperature data

RDB type 3, subtype 83

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 218
    BUFR EDITION NUMBER                   3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                   3
    ORIGINATING SUB-CENTRE                0
    ORIGINATING CENTRE                    98
    UPDATE SEQUENCE NUMBER                 1
    FLAG (PRESENCE OF SECTION 2)          128
    BUFR MESSAGE TYPE                     5
    BUFR MESSAGE SUBTYPE                   83
    VERSION NUMBER OF LOCAL TABLE        1
    YEAR                                  1
    MONTH                                 2
    DAY                                   1
    HOUR                                  11
    MINUTE                                46
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                    0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                    52

    REPORT DATA BASE KEY

    RDB DATA TYPE                        3
    RDB DATA SUBTYPE                     83
    YEAR                                  2001
    MONTH                                  2
    DAY                                    1
    HOUR                                  11
    MINUTE                                46
    SECOND                                 0
    LATITUDE 1                           -7.00
    LONGITUDE 1                           -178.00
    LATITUDE 2                            -5.00
    LONGITUDE 2                           -175.00
    NUMBER OF OBSERVATIONS                 3
    IDENTIFIER                             105
    TOTAL BUFR MESSAGE LENGTH              218
    DAY (RDB INSERTION)                    1
    HOUR (RDB INSERTION)                   14
    MINUTE (RDB INSERTION)                  26
    SECOND (RDB INSERTION)                   7
    DAY (MDB ARRIVAL)                       1
    HOUR (MDB ARRIVAL)                      14
    MINUTE (MDB ARRIVAL)                    23
    SECOND (MDB ARRIVAL)                     56
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         1
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    CORRECTION NUMBER                       0
    PART OF MESSAGE                         0
    QUALITY CONTROL % CONF                  70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)            26
    RESERVED                                0
    NUMBER OF DATA SUBSETS                  3
    FLAG (DATA TYPE/DATA COMPRESSION)      128

    DATA DESCRIPTORS (UNEXPANDED)

```

```
1 301043
2 304002
3 222000
4 101014
5 031031
6 001031
7 001032
8 101014
9 033007
```

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 002023 SATELLITE DERIVED WIND COMPUTATION METHOD
3 004001 YEAR
4 004002 MONTH
5 004003 DAY
6 004004 HOUR
7 004005 MINUTE
8 004006 SECOND
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
12 010004 PRESSURE
13 011001 WIND DIRECTION
14 011002 WIND SPEED
15 222000 QUALITY INFORMATION FOLLOW
16 031031 DATA PRESENT INDICATOR
17 031031 DATA PRESENT INDICATOR
18 031031 DATA PRESENT INDICATOR
19 031031 DATA PRESENT INDICATOR
20 031031 DATA PRESENT INDICATOR
21 031031 DATA PRESENT INDICATOR
22 031031 DATA PRESENT INDICATOR
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 031031 DATA PRESENT INDICATOR
27 031031 DATA PRESENT INDICATOR
28 031031 DATA PRESENT INDICATOR
29 031031 DATA PRESENT INDICATOR
30 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
31 001032 GENERATING APPLICATION
32 033007 % CONFIDENCE
33 033007 % CONFIDENCE
34 033007 % CONFIDENCE
35 033007 % CONFIDENCE
36 033007 % CONFIDENCE
37 033007 % CONFIDENCE
38 033007 % CONFIDENCE
39 033007 % CONFIDENCE
40 033007 % CONFIDENCE
41 033007 % CONFIDENCE
42 033007 % CONFIDENCE
43 033007 % CONFIDENCE
44 033007 % CONFIDENCE
45 033007 % CONFIDENCE
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 SATELLITE IDENT 0.1050000000E+03 CODE TABLE 1007
2 SATELLITE DERIV 0.1000000000E+01 CODE TABLE 2023
3 YEAR 0.2001000000E+04 YEAR
4 MONTH 0.2000000000E+01 MONTH
5 DAY 0.1000000000E+01 DAY
6 HOUR 0.1100000000E+02 HOUR
7 MINUTE 0.4600000000E+02 MINUTE
8 SECOND 0.0000000000E+00 SECOND
9 LATITUDE (HIGH -0.5000000000E+01 DEGREE
10 LONGITUDE (HIGH -0.1750000000E+03 DEGREE
11 VERTICAL SIGNIF 0.2000000000E+01 CODE TABLE 8003
12 PRESSURE 0.2500000000E+05 PA
13 WIND DIRECTION 0.2300000000E+03 DEGREE TRUE
14 WIND SPEED 0.9000000000E+01 M/S
15 QUALITY INFORMA 0.0000000000E+00
16 DATA PRESENT IN 0.0000000000E+00 NUMERIC
17 DATA PRESENT IN 0.0000000000E+00 NUMERIC
18 DATA PRESENT IN 0.0000000000E+00 NUMERIC
19 DATA PRESENT IN 0.0000000000E+00 NUMERIC
20 DATA PRESENT IN 0.0000000000E+00 NUMERIC
21 DATA PRESENT IN 0.0000000000E+00 NUMERIC
22 DATA PRESENT IN 0.0000000000E+00 NUMERIC
23 DATA PRESENT IN 0.0000000000E+00 NUMERIC
24 DATA PRESENT IN 0.0000000000E+00 NUMERIC
25 DATA PRESENT IN 0.0000000000E+00 NUMERIC
26 DATA PRESENT IN 0.0000000000E+00 NUMERIC
27 DATA PRESENT IN 0.0000000000E+00 NUMERIC
28 DATA PRESENT IN 0.0000000000E+00 NUMERIC
29 DATA PRESENT IN 0.0000000000E+00 NUMERIC
30 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
31 GENERATING APPL 0.1000000000E+01 CODE TABLE 1032
```

```
32 % CONFIDENCE      0.7000000000E+02 NUMERIC
33 % CONFIDENCE      0.7000000000E+02 NUMERIC
34 % CONFIDENCE      0.7000000000E+02 NUMERIC
35 % CONFIDENCE      0.7000000000E+02 NUMERIC
36 % CONFIDENCE      0.7000000000E+02 NUMERIC
37 % CONFIDENCE      0.7000000000E+02 NUMERIC
38 % CONFIDENCE      0.7000000000E+02 NUMERIC
39 % CONFIDENCE      0.7000000000E+02 NUMERIC
40 % CONFIDENCE      0.7000000000E+02 NUMERIC
41 % CONFIDENCE      0.7000000000E+02 NUMERIC
42 % CONFIDENCE      0.7000000000E+02 NUMERIC
43 % CONFIDENCE      0.7500000000E+02 NUMERIC
44 % CONFIDENCE      0.7000000000E+02 NUMERIC
45 % CONFIDENCE      0.7000000000E+02 NUMERIC
```

### 3.19 Satob section 5

RDB type 3, subtype 85

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 3252
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 5
    BUFR MESSAGE SUBTYPE              85
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             11
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   3
    RDB DATA SUBTYPE                 85
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             11
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       0.00
    LONGITUDE 1                      -9.00
    LATITUDE 2                       9.00
    LONGITUDE 2                      0.00
    NUMBER OF OBSERVATIONS            90
    IDENTIFIER                       54
    TOTAL BUFR MESSAGE LENGTH        3252
    DAY (RDB INSERTION)               1
    HOUR (RDB INSERTION)              12
    MINUTE (RDB INSERTION)            14
    SECOND (RDB INSERTION)            9
    DAY (MDB ARRIVAL)                 1
    HOUR (MDB ARRIVAL)                12
    MINUTE (MDB ARRIVAL)              12
    SECOND (MDB ARRIVAL)              9
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      26
    RESERVED                          0
    NUMBER OF DATA SUBSETS           90
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)
```

```

1 301043
2 304004
3 222000
4 101014
5 031031
6 001031
7 001032
8 101014
9 033007

```

## DATA DESCRIPTORS (EXPANDED)

```

1 001007 SATELLITE IDENTIFIER
2 002023 SATELLITE DERIVED WIND COMPUTATION METHOD
3 004001 YEAR
4 004002 MONTH
5 004003 DAY
6 004004 HOUR
7 004005 MINUTE
8 004006 SECOND
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
12 010004 PRESSURE
13 020010 CLOUD COVER (TOTAL)
14 012001 TEMPERATURE/DRY BULB TEMPERATURE
15 222000 QUALITY INFORMATION FOLLOW
16 031031 DATA PRESENT INDICATOR
17 031031 DATA PRESENT INDICATOR
18 031031 DATA PRESENT INDICATOR
19 031031 DATA PRESENT INDICATOR
20 031031 DATA PRESENT INDICATOR
21 031031 DATA PRESENT INDICATOR
22 031031 DATA PRESENT INDICATOR
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 031031 DATA PRESENT INDICATOR
27 031031 DATA PRESENT INDICATOR
28 031031 DATA PRESENT INDICATOR
29 031031 DATA PRESENT INDICATOR
30 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
31 001032 GENERATING APPLICATION
32 033007 % CONFIDENCE
33 033007 % CONFIDENCE
34 033007 % CONFIDENCE
35 033007 % CONFIDENCE
36 033007 % CONFIDENCE
37 033007 % CONFIDENCE
38 033007 % CONFIDENCE
39 033007 % CONFIDENCE
40 033007 % CONFIDENCE
41 033007 % CONFIDENCE
42 033007 % CONFIDENCE
43 033007 % CONFIDENCE
44 033007 % CONFIDENCE
45 033007 % CONFIDENCE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

1 SATELLITE IDENT 0.5400000000E+02 CODE TABLE 1007
2 SATELLITE DERIV MISSING CODE TABLE 2023
3 YEAR 0.2001000000E+04 YEAR
4 MONTH 0.2000000000E+01 MONTH
5 DAY 0.1000000000E+01 DAY
6 HOUR 0.1100000000E+02 HOUR
7 MINUTE 0.0000000000E+00 MINUTE
8 SECOND 0.0000000000E+00 SECOND
9 LATITUDE (HIGH 0.0000000000E+00 DEGREE
10 LONGITUDE (HIGH 0.0000000000E+00 DEGREE
11 VERTICAL SIGNIF 0.2000000000E+01 CODE TABLE 8003
12 PRESSURE MISSING PA
13 CLOUD COVER (TO 0.0000000000E+00 %
14 TEMPERATURE/DRY MISSING K
15 QUALITY INFORMA 0.0000000000E+00
16 DATA PRESENT IN 0.0000000000E+00 NUMERIC
17 DATA PRESENT IN 0.0000000000E+00 NUMERIC
18 DATA PRESENT IN 0.0000000000E+00 NUMERIC
19 DATA PRESENT IN 0.0000000000E+00 NUMERIC
20 DATA PRESENT IN 0.0000000000E+00 NUMERIC
21 DATA PRESENT IN 0.0000000000E+00 NUMERIC
22 DATA PRESENT IN 0.0000000000E+00 NUMERIC
23 DATA PRESENT IN 0.0000000000E+00 NUMERIC
24 DATA PRESENT IN 0.0000000000E+00 NUMERIC
25 DATA PRESENT IN 0.0000000000E+00 NUMERIC
26 DATA PRESENT IN 0.0000000000E+00 NUMERIC
27 DATA PRESENT IN 0.0000000000E+00 NUMERIC
28 DATA PRESENT IN 0.0000000000E+00 NUMERIC
29 DATA PRESENT IN 0.0000000000E+00 NUMERIC
30 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
31 GENERATING APPL 0.1000000000E+01 CODE TABLE 1032

```



```
32 % CONFIDENCE      0.7000000000E+02  NUMERIC
33 % CONFIDENCE      0.7000000000E+02  NUMERIC
34 % CONFIDENCE      0.7000000000E+02  NUMERIC
35 % CONFIDENCE      0.7000000000E+02  NUMERIC
36 % CONFIDENCE      0.7000000000E+02  NUMERIC
37 % CONFIDENCE      0.7000000000E+02  NUMERIC
38 % CONFIDENCE      0.7000000000E+02  NUMERIC
39 % CONFIDENCE      0.7000000000E+02  NUMERIC
40 % CONFIDENCE      0.7000000000E+02  NUMERIC
41 % CONFIDENCE      0.7000000000E+02  NUMERIC
42 % CONFIDENCE      0.7000000000E+02  NUMERIC
43 % CONFIDENCE      0.7000000000E+02  NUMERIC
44 % CONFIDENCE      0.7000000000E+02  NUMERIC
45 % CONFIDENCE      0.7000000000E+02  NUMERIC
```



## 3.20 High Density winds

RDB type 3, subtype 87

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 3348
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 5
    BUFR MESSAGE SUBTYPE              87
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               1
    HOUR                              9
    MINUTE                            30
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    3
    RDB DATA SUBTYPE                 87
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                              9
    MINUTE                            30
    SECOND                             0
    LATITUDE 1                       -59.35
    LONGITUDE 1                      -31.28
    LATITUDE 2                       -49.77
    LONGITUDE 2                      35.33
    NUMBER OF OBSERVATIONS             128
    IDENTIFIER                         54
    TOTAL BUFR MESSAGE LENGTH         3348
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               10
    MINUTE (RDB INSERTION)             14
    SECOND (RDB INSERTION)             10
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                10
    MINUTE (MDB ARRIVAL)               10
    SECOND (MDB ARRIVAL)               42
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)       50
    RESERVED                           0
    NUMBER OF DATA SUBSETS            128
    FLAG (DATA TYPE/DATA COMPRESSION) 192

```

DATA DESCRIPTORS (UNEXPANDED)

1 310195  
2 222000  
3 236000  
4 101103  
5 031031  
6 001031  
7 001032  
8 101004  
9 033007  
10 222000  
11 237000  
12 001031  
13 001032  
14 101004  
15 033252  
16 222000  
17 237000  
18 001031  
19 001032  
20 101004  
21 033253

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
3 002196 SATELLITE CLASSIFICATION  
4 002221 SEGMENT SIZE AT NADIR IN X DIRECTION  
5 002222 SEGMENT SIZE AT NADIR IN Y DIRECTION  
6 004001 YEAR  
7 004002 MONTH  
8 004003 DAY  
9 004004 HOUR  
10 004005 MINUTE  
11 004006 SECOND  
12 005001 LATITUDE (HIGH ACCURACY)  
13 006001 LONGITUDE (HIGH ACCURACY)  
14 002252 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
15 002023 SATELLITE DERIVED WIND COMPUTATION METHOD  
16 007004 PRESSURE  
17 011001 WIND DIRECTION  
18 011002 WIND SPEED  
19 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
20 002198 SATELLITE CHANNEL BAND WIDTH  
21 012193 COLDEST CLUSTER TEMPERATURE  
22 002231 HEIGHT ASSIGNMENT METHOD  
23 002232 TRACER CORRELATION METHOD  
24 008012 LAND/SEA QUALIFIER  
25 007024 SATELLITE ZENITH ANGLE  
26 002057 ORIGIN OF FIRST GUESS INFORMATION  
27 008021 TIME SIGNIFICANCE  
28 004001 YEAR  
29 004002 MONTH  
30 004003 DAY  
31 004004 HOUR  
32 008021 TIME SIGNIFICANCE  
33 004024 TIME PERIOD OR DISPLACEMENT  
34 008021 TIME SIGNIFICANCE  
35 004004 HOUR  
36 004005 MINUTE  
37 004006 SECOND  
38 008021 TIME SIGNIFICANCE  
39 004004 HOUR  
40 004005 MINUTE  
41 004006 SECOND  
42 011001 WIND DIRECTION  
43 011002 WIND SPEED  
44 008021 TIME SIGNIFICANCE  
45 004004 HOUR  
46 004005 MINUTE  
47 004006 SECOND  
48 008021 TIME SIGNIFICANCE  
49 004004 HOUR  
50 004005 MINUTE  
51 004006 SECOND  
52 011001 WIND DIRECTION  
53 011002 WIND SPEED  
54 008021 TIME SIGNIFICANCE  
55 004004 HOUR  
56 004005 MINUTE  
57 004006 SECOND  
58 008021 TIME SIGNIFICANCE  
59 004004 HOUR  
60 004005 MINUTE  
61 004006 SECOND  
62 011001 WIND DIRECTION  
63 011002 WIND SPEED  
64 008021 TIME SIGNIFICANCE  
65 004004 HOUR  
66 004005 MINUTE  
67 004006 SECOND  
68 008021 TIME SIGNIFICANCE

```
69 004004 HOUR
70 004005 MINUTE
71 004006 SECOND
72 011001 WIND DIRECTION
73 011002 WIND SPEED
74 002231 HEIGHT ASSIGNMENT METHOD
75 007004 PRESSURE
76 012001 TEMPERATURE/DRY BULB TEMPERATURE
77 002231 HEIGHT ASSIGNMENT METHOD
78 007004 PRESSURE
79 012001 TEMPERATURE/DRY BULB TEMPERATURE
80 002231 HEIGHT ASSIGNMENT METHOD
81 007004 PRESSURE
82 012001 TEMPERATURE/DRY BULB TEMPERATURE
83 002231 HEIGHT ASSIGNMENT METHOD
84 007004 PRESSURE
85 012001 TEMPERATURE/DRY BULB TEMPERATURE
86 002231 HEIGHT ASSIGNMENT METHOD
87 007004 PRESSURE
88 012001 TEMPERATURE/DRY BULB TEMPERATURE
89 002231 HEIGHT ASSIGNMENT METHOD
90 007004 PRESSURE
91 012001 TEMPERATURE/DRY BULB TEMPERATURE
92 002231 HEIGHT ASSIGNMENT METHOD
93 007004 PRESSURE
94 012001 TEMPERATURE/DRY BULB TEMPERATURE
95 002231 HEIGHT ASSIGNMENT METHOD
96 007004 PRESSURE
97 012001 TEMPERATURE/DRY BULB TEMPERATURE
98 002231 HEIGHT ASSIGNMENT METHOD
99 007004 PRESSURE
100 012001 TEMPERATURE/DRY BULB TEMPERATURE
101 002231 HEIGHT ASSIGNMENT METHOD
102 007004 PRESSURE
103 012001 TEMPERATURE/DRY BULB TEMPERATURE
104 222000 QUALITY INFORMATION FOLLOW
105 236000 BACKWARD REFERENCE BIT MAP
106 031031 DATA PRESENT INDICATOR
107 031031 DATA PRESENT INDICATOR
108 031031 DATA PRESENT INDICATOR
109 031031 DATA PRESENT INDICATOR
110 031031 DATA PRESENT INDICATOR
111 031031 DATA PRESENT INDICATOR
112 031031 DATA PRESENT INDICATOR
113 031031 DATA PRESENT INDICATOR
114 031031 DATA PRESENT INDICATOR
115 031031 DATA PRESENT INDICATOR
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161 031031 DATA PRESENT INDICATOR
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162 031031 DATA PRESENT INDICATOR
163 031031 DATA PRESENT INDICATOR
164 031031 DATA PRESENT INDICATOR
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202 031031 DATA PRESENT INDICATOR
203 031031 DATA PRESENT INDICATOR
204 031031 DATA PRESENT INDICATOR
205 031031 DATA PRESENT INDICATOR
206 031031 DATA PRESENT INDICATOR
207 031031 DATA PRESENT INDICATOR
208 031031 DATA PRESENT INDICATOR
209 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
210 001032 GENERATING APPLICATION
211 033007 % CONFIDENCE
212 033007 % CONFIDENCE
213 033007 % CONFIDENCE
214 033007 % CONFIDENCE
215 222000 QUALITY INFORMATION FOLLOW
216 237000 USE PREVIOUSLY DEFINED BIT MAP
217 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
218 001032 GENERATING APPLICATION
219 033252 MANUAL-AUTOMATIC QUALITY CONTROL
220 033252 MANUAL-AUTOMATIC QUALITY CONTROL
221 033252 MANUAL-AUTOMATIC QUALITY CONTROL
222 033252 MANUAL-AUTOMATIC QUALITY CONTROL
223 222000 QUALITY INFORMATION FOLLOW
224 237000 USE PREVIOUSLY DEFINED BIT MAP
225 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
226 001032 GENERATING APPLICATION
227 033253 NOMINAL CONFIDENCE THRESHOLD
228 033253 NOMINAL CONFIDENCE THRESHOLD
229 033253 NOMINAL CONFIDENCE THRESHOLD
230 033253 NOMINAL CONFIDENCE THRESHOLD
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 SATELLITE IDENT      0.5400000000E+02 CODE TABLE  1007
2 IDENTIFICATION       0.2540000000E+03 CODE TABLE  1031
3 SATELLITE CLASS      0.3320000000E+03 CODE TABLE  2196
4 SEGMENT SIZE AT      0.1600000000E+06 M
5 SEGMENT SIZE AT      0.1600000000E+06 M
6 YEAR                 0.2001000000E+04 YEAR
7 MONTH               0.2000000000E+01 MONTH
8 DAY                 0.1000000000E+01 DAY
9 HOUR                0.9000000000E+01 HOUR
10 MINUTE             0.3000000000E+02 MINUTE
11 SECOND             0.0000000000E+00 SECOND
12 LATITUDE (HIGH)    -0.5934919000E+02 DEGREE
13 LONGITUDE (HIGH)   0.1288555000E+02 DEGREE
14 SATELLITE INSTR     0.2560000000E+03 FLAG TABLE  2252
15 SATELLITE DERIV     0.1000000000E+01 CODE TABLE  2023
16 PRESSURE           0.4220000000E+05 PA
17 WIND DIRECTION      0.8900000000E+02 DEGREE TRUE
18 WIND SPEED          0.1950000000E+02 M/S
19 SATELLITE CHANN     0.2650000000E+14 Hz
20 SATELLITE CHANN     0.3090000000E+13 Hz
```

21	COLDEST CLUSTER	0.2397000000E+03	K	
22	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
23	TRACER CORRELAT	MISSING	CODE TABLE	2232
24	LAND/SEA QUALIF	MISSING	CODE TABLE	8012
25	SATELLITE ZENIT	0.6700000000E+02	DEGREE	
26	ORIGIN OF FIRST	MISSING	CODE TABLE	2057
27	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
28	YEAR	MISSING	YEAR	
29	MONTH	MISSING	MONTH	
30	DAY	MISSING	DAY	
31	HOURL	MISSING	HOURL	
32	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
33	TIME PERIOD OR	MISSING	HOURL	
34	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
35	HOURL	MISSING	HOURL	
36	MINUTE	MISSING	MINUTE	
37	SECOND	MISSING	SECOND	
38	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
39	HOURL	MISSING	HOURL	
40	MINUTE	MISSING	MINUTE	
41	SECOND	MISSING	SECOND	
42	WIND DIRECTION	MISSING	DEGREE TRUE	
43	WIND SPEED	MISSING	M/S	
44	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
45	HOURL	MISSING	HOURL	
46	MINUTE	MISSING	MINUTE	
47	SECOND	MISSING	SECOND	
48	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
49	HOURL	MISSING	HOURL	
50	MINUTE	MISSING	MINUTE	
51	SECOND	MISSING	SECOND	
52	WIND DIRECTION	MISSING	DEGREE TRUE	
53	WIND SPEED	MISSING	M/S	
54	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
55	HOURL	MISSING	HOURL	
56	MINUTE	MISSING	MINUTE	
57	SECOND	MISSING	SECOND	
58	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
59	HOURL	MISSING	HOURL	
60	MINUTE	MISSING	MINUTE	
61	SECOND	MISSING	SECOND	
62	WIND DIRECTION	MISSING	DEGREE TRUE	
63	WIND SPEED	MISSING	M/S	
64	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
65	HOURL	MISSING	HOURL	
66	MINUTE	MISSING	MINUTE	
67	SECOND	MISSING	SECOND	
68	TIME SIGNIFICAN	MISSING	CODE TABLE	8021
69	HOURL	MISSING	HOURL	
70	MINUTE	MISSING	MINUTE	
71	SECOND	MISSING	SECOND	
72	WIND DIRECTION	MISSING	DEGREE TRUE	
73	WIND SPEED	MISSING	M/S	
74	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
75	PRESSURE	MISSING	PA	
76	TEMPERATURE/DRY	MISSING	K	
77	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
78	PRESSURE	MISSING	PA	
79	TEMPERATURE/DRY	MISSING	K	
80	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
81	PRESSURE	MISSING	PA	
82	TEMPERATURE/DRY	MISSING	K	
83	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
84	PRESSURE	MISSING	PA	
85	TEMPERATURE/DRY	MISSING	K	
86	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
87	PRESSURE	MISSING	PA	
88	TEMPERATURE/DRY	MISSING	K	
89	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
90	PRESSURE	MISSING	PA	
91	TEMPERATURE/DRY	MISSING	K	
92	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
93	PRESSURE	MISSING	PA	
94	TEMPERATURE/DRY	MISSING	K	
95	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
96	PRESSURE	MISSING	PA	
97	TEMPERATURE/DRY	MISSING	K	
98	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
99	PRESSURE	MISSING	PA	
100	TEMPERATURE/DRY	MISSING	K	
101	HEIGHT ASSIGNME	MISSING	CODE TABLE	2231
102	PRESSURE	MISSING	PA	
103	TEMPERATURE/DRY	MISSING	K	
104	QUALITY INFORMA	0.0000000000E+00		
105	BACKWARD REFERE	0.0000000000E+00		
106	DATA PRESENT IN	MISSING	NUMERIC	
107	DATA PRESENT IN	MISSING	NUMERIC	
108	DATA PRESENT IN	MISSING	NUMERIC	
109	DATA PRESENT IN	MISSING	NUMERIC	
110	DATA PRESENT IN	MISSING	NUMERIC	
111	DATA PRESENT IN	MISSING	NUMERIC	
112	DATA PRESENT IN	MISSING	NUMERIC	
113	DATA PRESENT IN	MISSING	NUMERIC	

[illegible]

207 DATA PRESENT IN	MISSING NUMERIC		
208 DATA PRESENT IN	MISSING NUMERIC		
209 IDENTIFICATION	0.2540000000E+03	CODE TABLE	1031
210 GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
211 % CONFIDENCE	0.5400000000E+02	NUMERIC	
212 % CONFIDENCE	0.5400000000E+02	NUMERIC	
213 % CONFIDENCE	0.5400000000E+02	NUMERIC	
214 % CONFIDENCE	0.5400000000E+02	NUMERIC	
215 QUALITY INFORMA	0.0000000000E+00		
216 USE PREVIOUSLY	0.0000000000E+00		
217 IDENTIFICATION	0.2540000000E+03	CODE TABLE	1031
218 GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
219 MANUAL-AUTOMATI	0.3000000000E+01	CODE TABLE	33252
220 MANUAL-AUTOMATI	0.3000000000E+01	CODE TABLE	33252
221 MANUAL-AUTOMATI	0.3000000000E+01	CODE TABLE	33252
222 MANUAL-AUTOMATI	0.3000000000E+01	CODE TABLE	33252
223 QUALITY INFORMA	0.0000000000E+00		
224 USE PREVIOUSLY	0.0000000000E+00		
225 IDENTIFICATION	0.2540000000E+03	CODE TABLE	1031
226 GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
227 NOMINAL CONFIDE	0.8000000000E+02 %		
228 NOMINAL CONFIDE	0.8000000000E+02 %		
229 NOMINAL CONFIDE	0.8000000000E+02 %		
230 NOMINAL CONFIDE	0.8000000000E+02 %		

## 3.21 Pilot land

RDB type 4, subtype 91

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 956
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           5
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 2
    BUFR MESSAGE SUBTYPE             91
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   4
    RDB DATA SUBTYPE                 91
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       52.42
    LONGITUDE 1                      -4.00
    IDENTIFIER                        03501
    TOTAL BUFR MESSAGE LENGTH         956
    DAY (RDB INSERTION)               1
    HOUR (RDB INSERTION)              10
    MINUTE (RDB INSERTION)            14
    SECOND (RDB INSERTION)            11
    DAY (MDB ARRIVAL)                 1
    HOUR (MDB ARRIVAL)                10
    MINUTE (MDB ARRIVAL)              12
    SECOND (MDB ARRIVAL)              35
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      52
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301001
    2 002011
```



```

3  002012
4  301011
5  301012
6  301022
7  105000
8  031001
9  007004
10 008001
11 010003
12 011001
13 011002
14 222000
15 101000
16 031002
17 031031
18 001031
19 001032
20 101000
21 031002
22 033007

```

## DATA DESCRIPTORS (EXPANDED)

```

1  001001  WMO BLOCK NUMBER
2  001002  WMO STATION NUMBER
3  002011  RADIOSONDE TYPE
4  002012  RADIOSONDE COMPUTATIONAL METHOD
5  004001  YEAR
6  004002  MONTH
7  004003  DAY
8  004004  HOUR
9  004005  MINUTE
10 005001  LATITUDE (HIGH ACCURACY)
11 006001  LONGITUDE (HIGH ACCURACY)
12 007001  HEIGHT OF STATION
13 031001  DELAYED DESCRIPTOR REPLICATION FACTOR
14 007004  PRESSURE
15 008001  VERTICAL SOUNDING SIGNIFICANCE
16 010003  GEOPOTENTIAL
17 011001  WIND DIRECTION
18 011002  WIND SPEED
19 007004  PRESSURE
20 008001  VERTICAL SOUNDING SIGNIFICANCE
21 010003  GEOPOTENTIAL
22 011001  WIND DIRECTION
23 011002  WIND SPEED
24 007004  PRESSURE
25 008001  VERTICAL SOUNDING SIGNIFICANCE
26 010003  GEOPOTENTIAL
27 011001  WIND DIRECTION
28 011002  WIND SPEED
29 007004  PRESSURE
30 008001  VERTICAL SOUNDING SIGNIFICANCE
31 010003  GEOPOTENTIAL
32 011001  WIND DIRECTION
33 011002  WIND SPEED
34 007004  PRESSURE
35 008001  VERTICAL SOUNDING SIGNIFICANCE
36 010003  GEOPOTENTIAL
37 011001  WIND DIRECTION
38 011002  WIND SPEED
39 007004  PRESSURE
40 008001  VERTICAL SOUNDING SIGNIFICANCE
41 010003  GEOPOTENTIAL
42 011001  WIND DIRECTION
43 011002  WIND SPEED
44 007004  PRESSURE
45 008001  VERTICAL SOUNDING SIGNIFICANCE
46 010003  GEOPOTENTIAL
47 011001  WIND DIRECTION
48 011002  WIND SPEED
49 007004  PRESSURE
50 008001  VERTICAL SOUNDING SIGNIFICANCE
51 010003  GEOPOTENTIAL
52 011001  WIND DIRECTION
53 011002  WIND SPEED
54 007004  PRESSURE
55 008001  VERTICAL SOUNDING SIGNIFICANCE
56 010003  GEOPOTENTIAL
57 011001  WIND DIRECTION
58 011002  WIND SPEED
59 007004  PRESSURE
60 008001  VERTICAL SOUNDING SIGNIFICANCE
61 010003  GEOPOTENTIAL
62 011001  WIND DIRECTION
63 011002  WIND SPEED
64 007004  PRESSURE
65 008001  VERTICAL SOUNDING SIGNIFICANCE
66 010003  GEOPOTENTIAL
67 011001  WIND DIRECTION
68 011002  WIND SPEED
69 007004  PRESSURE

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70 008001 VERTICAL SOUNDING SIGNIFICANCE
71 010003 GEOPOTENTIAL
72 011001 WIND DIRECTION
73 011002 WIND SPEED
74 007004 PRESSURE
75 008001 VERTICAL SOUNDING SIGNIFICANCE
76 010003 GEOPOTENTIAL
77 011001 WIND DIRECTION
78 011002 WIND SPEED
79 007004 PRESSURE
80 008001 VERTICAL SOUNDING SIGNIFICANCE
81 010003 GEOPOTENTIAL
82 011001 WIND DIRECTION
83 011002 WIND SPEED
84 007004 PRESSURE
85 008001 VERTICAL SOUNDING SIGNIFICANCE
86 010003 GEOPOTENTIAL
87 011001 WIND DIRECTION
88 011002 WIND SPEED
89 007004 PRESSURE
90 008001 VERTICAL SOUNDING SIGNIFICANCE
91 010003 GEOPOTENTIAL
92 011001 WIND DIRECTION
93 011002 WIND SPEED
94 007004 PRESSURE
95 008001 VERTICAL SOUNDING SIGNIFICANCE
96 010003 GEOPOTENTIAL
97 011001 WIND DIRECTION
98 011002 WIND SPEED
99 007004 PRESSURE
100 008001 VERTICAL SOUNDING SIGNIFICANCE
101 010003 GEOPOTENTIAL
102 011001 WIND DIRECTION
103 011002 WIND SPEED
104 007004 PRESSURE
105 008001 VERTICAL SOUNDING SIGNIFICANCE
106 010003 GEOPOTENTIAL
107 011001 WIND DIRECTION
108 011002 WIND SPEED
109 007004 PRESSURE
110 008001 VERTICAL SOUNDING SIGNIFICANCE
111 010003 GEOPOTENTIAL
112 011001 WIND DIRECTION
113 011002 WIND SPEED
114 007004 PRESSURE
115 008001 VERTICAL SOUNDING SIGNIFICANCE
116 010003 GEOPOTENTIAL
117 011001 WIND DIRECTION
118 011002 WIND SPEED
119 007004 PRESSURE
120 008001 VERTICAL SOUNDING SIGNIFICANCE
121 010003 GEOPOTENTIAL
122 011001 WIND DIRECTION
123 011002 WIND SPEED
124 007004 PRESSURE
125 008001 VERTICAL SOUNDING SIGNIFICANCE
126 010003 GEOPOTENTIAL
127 011001 WIND DIRECTION
128 011002 WIND SPEED
129 007004 PRESSURE
130 008001 VERTICAL SOUNDING SIGNIFICANCE
131 010003 GEOPOTENTIAL
132 011001 WIND DIRECTION
133 011002 WIND SPEED
134 007004 PRESSURE
135 008001 VERTICAL SOUNDING SIGNIFICANCE
136 010003 GEOPOTENTIAL
137 011001 WIND DIRECTION
138 011002 WIND SPEED
139 007004 PRESSURE
140 008001 VERTICAL SOUNDING SIGNIFICANCE
141 010003 GEOPOTENTIAL
142 011001 WIND DIRECTION
143 011002 WIND SPEED
144 007004 PRESSURE
145 008001 VERTICAL SOUNDING SIGNIFICANCE
146 010003 GEOPOTENTIAL
147 011001 WIND DIRECTION
148 011002 WIND SPEED
149 007004 PRESSURE
150 008001 VERTICAL SOUNDING SIGNIFICANCE
151 010003 GEOPOTENTIAL
152 011001 WIND DIRECTION
153 011002 WIND SPEED
154 007004 PRESSURE
155 008001 VERTICAL SOUNDING SIGNIFICANCE
156 010003 GEOPOTENTIAL
157 011001 WIND DIRECTION
158 011002 WIND SPEED
159 007004 PRESSURE
160 008001 VERTICAL SOUNDING SIGNIFICANCE
161 010003 GEOPOTENTIAL
162 011001 WIND DIRECTION
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163 011002 WIND SPEED
164 007004 PRESSURE
165 008001 VERTICAL SOUNDING SIGNIFICANCE
166 010003 GEOPOTENTIAL
167 011001 WIND DIRECTION
168 011002 WIND SPEED
169 007004 PRESSURE
170 008001 VERTICAL SOUNDING SIGNIFICANCE
171 010003 GEOPOTENTIAL
172 011001 WIND DIRECTION
173 011002 WIND SPEED
174 007004 PRESSURE
175 008001 VERTICAL SOUNDING SIGNIFICANCE
176 010003 GEOPOTENTIAL
177 011001 WIND DIRECTION
178 011002 WIND SPEED
179 007004 PRESSURE
180 008001 VERTICAL SOUNDING SIGNIFICANCE
181 010003 GEOPOTENTIAL
182 011001 WIND DIRECTION
183 011002 WIND SPEED
184 007004 PRESSURE
185 008001 VERTICAL SOUNDING SIGNIFICANCE
186 010003 GEOPOTENTIAL
187 011001 WIND DIRECTION
188 011002 WIND SPEED
189 007004 PRESSURE
190 008001 VERTICAL SOUNDING SIGNIFICANCE
191 010003 GEOPOTENTIAL
192 011001 WIND DIRECTION
193 011002 WIND SPEED
194 007004 PRESSURE
195 008001 VERTICAL SOUNDING SIGNIFICANCE
196 010003 GEOPOTENTIAL
197 011001 WIND DIRECTION
198 011002 WIND SPEED
199 007004 PRESSURE
200 008001 VERTICAL SOUNDING SIGNIFICANCE
201 010003 GEOPOTENTIAL
202 011001 WIND DIRECTION
203 011002 WIND SPEED
204 007004 PRESSURE
205 008001 VERTICAL SOUNDING SIGNIFICANCE
206 010003 GEOPOTENTIAL
207 011001 WIND DIRECTION
208 011002 WIND SPEED
209 007004 PRESSURE
210 008001 VERTICAL SOUNDING SIGNIFICANCE
211 010003 GEOPOTENTIAL
212 011001 WIND DIRECTION
213 011002 WIND SPEED
214 007004 PRESSURE
215 008001 VERTICAL SOUNDING SIGNIFICANCE
216 010003 GEOPOTENTIAL
217 011001 WIND DIRECTION
218 011002 WIND SPEED
219 007004 PRESSURE
220 008001 VERTICAL SOUNDING SIGNIFICANCE
221 010003 GEOPOTENTIAL
222 011001 WIND DIRECTION
223 011002 WIND SPEED
224 007004 PRESSURE
225 008001 VERTICAL SOUNDING SIGNIFICANCE
226 010003 GEOPOTENTIAL
227 011001 WIND DIRECTION
228 011002 WIND SPEED
229 007004 PRESSURE
230 008001 VERTICAL SOUNDING SIGNIFICANCE
231 010003 GEOPOTENTIAL
232 011001 WIND DIRECTION
233 011002 WIND SPEED
234 007004 PRESSURE
235 008001 VERTICAL SOUNDING SIGNIFICANCE
236 010003 GEOPOTENTIAL
237 011001 WIND DIRECTION
238 011002 WIND SPEED
239 007004 PRESSURE
240 008001 VERTICAL SOUNDING SIGNIFICANCE
241 010003 GEOPOTENTIAL
242 011001 WIND DIRECTION
243 011002 WIND SPEED
244 007004 PRESSURE
245 008001 VERTICAL SOUNDING SIGNIFICANCE
246 010003 GEOPOTENTIAL
247 011001 WIND DIRECTION
248 011002 WIND SPEED
249 007004 PRESSURE
250 008001 VERTICAL SOUNDING SIGNIFICANCE
251 010003 GEOPOTENTIAL
252 011001 WIND DIRECTION
253 011002 WIND SPEED
254 007004 PRESSURE
255 008001 VERTICAL SOUNDING SIGNIFICANCE
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256	010003	GEOPOTENTIAL
257	011001	WIND DIRECTION
258	011002	WIND SPEED
259	007004	PRESSURE
260	008001	VERTICAL SOUNDING SIGNIFICANCE
261	010003	GEOPOTENTIAL
262	011001	WIND DIRECTION
263	011002	WIND SPEED
264	007004	PRESSURE
265	008001	VERTICAL SOUNDING SIGNIFICANCE
266	010003	GEOPOTENTIAL
267	011001	WIND DIRECTION
268	011002	WIND SPEED
269	007004	PRESSURE
270	008001	VERTICAL SOUNDING SIGNIFICANCE
271	010003	GEOPOTENTIAL
272	011001	WIND DIRECTION
273	011002	WIND SPEED
274	007004	PRESSURE
275	008001	VERTICAL SOUNDING SIGNIFICANCE
276	010003	GEOPOTENTIAL
277	011001	WIND DIRECTION
278	011002	WIND SPEED
279	007004	PRESSURE
280	008001	VERTICAL SOUNDING SIGNIFICANCE
281	010003	GEOPOTENTIAL
282	011001	WIND DIRECTION
283	011002	WIND SPEED
284	007004	PRESSURE
285	008001	VERTICAL SOUNDING SIGNIFICANCE
286	010003	GEOPOTENTIAL
287	011001	WIND DIRECTION
288	011002	WIND SPEED
289	007004	PRESSURE
290	008001	VERTICAL SOUNDING SIGNIFICANCE
291	010003	GEOPOTENTIAL
292	011001	WIND DIRECTION
293	011002	WIND SPEED
294	007004	PRESSURE
295	008001	VERTICAL SOUNDING SIGNIFICANCE
296	010003	GEOPOTENTIAL
297	011001	WIND DIRECTION
298	011002	WIND SPEED
299	007004	PRESSURE
300	008001	VERTICAL SOUNDING SIGNIFICANCE
301	010003	GEOPOTENTIAL
302	011001	WIND DIRECTION
303	011002	WIND SPEED
304	007004	PRESSURE
305	008001	VERTICAL SOUNDING SIGNIFICANCE
306	010003	GEOPOTENTIAL
307	011001	WIND DIRECTION
308	011002	WIND SPEED
309	007004	PRESSURE
310	008001	VERTICAL SOUNDING SIGNIFICANCE
311	010003	GEOPOTENTIAL
312	011001	WIND DIRECTION
313	011002	WIND SPEED
314	007004	PRESSURE
315	008001	VERTICAL SOUNDING SIGNIFICANCE
316	010003	GEOPOTENTIAL
317	011001	WIND DIRECTION
318	011002	WIND SPEED
319	007004	PRESSURE
320	008001	VERTICAL SOUNDING SIGNIFICANCE
321	010003	GEOPOTENTIAL
322	011001	WIND DIRECTION
323	011002	WIND SPEED
324	007004	PRESSURE
325	008001	VERTICAL SOUNDING SIGNIFICANCE
326	010003	GEOPOTENTIAL
327	011001	WIND DIRECTION
328	011002	WIND SPEED
329	007004	PRESSURE
330	008001	VERTICAL SOUNDING SIGNIFICANCE
331	010003	GEOPOTENTIAL
332	011001	WIND DIRECTION
333	011002	WIND SPEED
334	007004	PRESSURE
335	008001	VERTICAL SOUNDING SIGNIFICANCE
336	010003	GEOPOTENTIAL
337	011001	WIND DIRECTION
338	011002	WIND SPEED
339	007004	PRESSURE
340	008001	VERTICAL SOUNDING SIGNIFICANCE
341	010003	GEOPOTENTIAL
342	011001	WIND DIRECTION
343	011002	WIND SPEED
344	007004	PRESSURE
345	008001	VERTICAL SOUNDING SIGNIFICANCE
346	010003	GEOPOTENTIAL
347	011001	WIND DIRECTION
348	011002	WIND SPEED

349	007004	PRESSURE
350	008001	VERTICAL SOUNDING SIGNIFICANCE
351	010003	GEOPOTENTIAL
352	011001	WIND DIRECTION
353	011002	WIND SPEED
354	222000	QUALITY INFORMATION FOLLOW
355	031002	EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
356	031031	DATA PRESENT INDICATOR
357	031031	DATA PRESENT INDICATOR
358	031031	DATA PRESENT INDICATOR
359	031031	DATA PRESENT INDICATOR
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440	031031	DATA PRESENT INDICATOR
441	031031	DATA PRESENT INDICATOR

ECMWF Technical Notes

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628 031031 DATA PRESENT INDICATOR
629 031031 DATA PRESENT INDICATOR
630 031031 DATA PRESENT INDICATOR
631 031031 DATA PRESENT INDICATOR
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1 WMO BLOCK NUMBE 0.3000000000E+01 NUMERIC

2	WMO STATION NUM	0.5010000000E+03	NUMERIC	
3	RADIOSONDE TYPE	MISSING	CODE TABLE	2011
4	RADIOSONDE COMP	MISSING	CODE TABLE	2012
5	YEAR	0.2001000000E+04	YEAR	
6	MONTH	0.2000000000E+01	MONTH	
7	DAY	0.1000000000E+01	DAY	
8	HOURL	0.1000000000E+02	HOURL	
9	MINUTE	0.0000000000E+00	MINUTE	
10	LATITUDE (HIGH	0.5242000000E+02	DEGREE	
11	LONGITUDE (HIGH	-0.4000000000E+01	DEGREE	
12	HEIGHT OF STATI	0.9200000000E+02	M	
13	DELAYED DESCRIP	0.6800000000E+02	NUMERIC	
14	PRESSURE	MISSING	PA	
15	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
16	GEOPOTENTIAL	0.2059000000E+05	M**2/S**2	
17	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
18	WIND SPEED	0.9000000000E+01	M/S	
19	PRESSURE	MISSING	PA	
20	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
21	GEOPOTENTIAL	0.2354000000E+05	M**2/S**2	
22	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
23	WIND SPEED	0.9000000000E+01	M/S	
24	PRESSURE	MISSING	PA	
25	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
26	GEOPOTENTIAL	0.2648000000E+05	M**2/S**2	
27	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
28	WIND SPEED	0.7000000000E+01	M/S	
29	PRESSURE	MISSING	PA	
30	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
31	GEOPOTENTIAL	0.2942000000E+05	M**2/S**2	
32	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
33	WIND SPEED	0.7000000000E+01	M/S	
34	PRESSURE	0.7000000000E+05	PA	
35	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
36	GEOPOTENTIAL	MISSING	M**2/S**2	
37	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
38	WIND SPEED	0.7000000000E+01	M/S	
39	PRESSURE	MISSING	PA	
40	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
41	GEOPOTENTIAL	0.3236000000E+05	M**2/S**2	
42	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
43	WIND SPEED	0.7000000000E+01	M/S	
44	PRESSURE	MISSING	PA	
45	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
46	GEOPOTENTIAL	0.3530000000E+05	M**2/S**2	
47	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
48	WIND SPEED	0.7000000000E+01	M/S	
49	PRESSURE	MISSING	PA	
50	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
51	GEOPOTENTIAL	0.3825000000E+05	M**2/S**2	
52	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
53	WIND SPEED	0.7000000000E+01	M/S	
54	PRESSURE	MISSING	PA	
55	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
56	GEOPOTENTIAL	0.4119000000E+05	M**2/S**2	
57	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
58	WIND SPEED	0.7000000000E+01	M/S	
59	PRESSURE	MISSING	PA	
60	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
61	GEOPOTENTIAL	0.4413000000E+05	M**2/S**2	
62	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
63	WIND SPEED	0.6000000000E+01	M/S	
64	PRESSURE	MISSING	PA	
65	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
66	GEOPOTENTIAL	0.4707000000E+05	M**2/S**2	
67	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
68	WIND SPEED	0.4000000000E+01	M/S	
69	PRESSURE	MISSING	PA	
70	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
71	GEOPOTENTIAL	0.5001000000E+05	M**2/S**2	
72	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
73	WIND SPEED	0.4000000000E+01	M/S	
74	PRESSURE	MISSING	PA	
75	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
76	GEOPOTENTIAL	0.5296000000E+05	M**2/S**2	
77	WIND DIRECTION	0.2800000000E+03	DEGREE TRUE	
78	WIND SPEED	0.4000000000E+01	M/S	
79	PRESSURE	0.5000000000E+05	PA	
80	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
81	GEOPOTENTIAL	MISSING	M**2/S**2	
82	WIND DIRECTION	0.2800000000E+03	DEGREE TRUE	
83	WIND SPEED	0.4000000000E+01	M/S	
84	PRESSURE	MISSING	PA	
85	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
86	GEOPOTENTIAL	0.5590000000E+05	M**2/S**2	
87	WIND DIRECTION	0.2700000000E+03	DEGREE TRUE	
88	WIND SPEED	0.6000000000E+01	M/S	
89	PRESSURE	MISSING	PA	
90	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
91	GEOPOTENTIAL	0.5884000000E+05	M**2/S**2	
92	WIND DIRECTION	0.2700000000E+03	DEGREE TRUE	
93	WIND SPEED	0.8000000000E+01	M/S	
94	PRESSURE	MISSING	PA	

95	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
96	GEOPOTENTIAL	0.6178000000E+05	M**2/S**2	
97	WIND DIRECTION	0.2700000000E+03	DEGREE TRUE	
98	WIND SPEED	0.8000000000E+01	M/S	
99	PRESSURE	MISSING PA		
100	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
101	GEOPOTENTIAL	0.6472000000E+05	M**2/S**2	
102	WIND DIRECTION	0.2700000000E+03	DEGREE TRUE	
103	WIND SPEED	0.9000000000E+01	M/S	
104	PRESSURE	MISSING PA		
105	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
106	GEOPOTENTIAL	0.6767000000E+05	M**2/S**2	
107	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
108	WIND SPEED	0.9000000000E+01	M/S	
109	PRESSURE	0.4000000000E+05	PA	
110	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
111	GEOPOTENTIAL	MISSING M**2/S**2		
112	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
113	WIND SPEED	0.9000000000E+01	M/S	
114	PRESSURE	MISSING PA		
115	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
116	GEOPOTENTIAL	0.7061000000E+05	M**2/S**2	
117	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
118	WIND SPEED	0.9000000000E+01	M/S	
119	PRESSURE	MISSING PA		
120	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
121	GEOPOTENTIAL	0.7355000000E+05	M**2/S**2	
122	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
123	WIND SPEED	0.1100000000E+02	M/S	
124	PRESSURE	MISSING PA		
125	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
126	GEOPOTENTIAL	0.7649000000E+05	M**2/S**2	
127	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
128	WIND SPEED	0.1100000000E+02	M/S	
129	PRESSURE	MISSING PA		
130	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
131	GEOPOTENTIAL	0.7943000000E+05	M**2/S**2	
132	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
133	WIND SPEED	0.1100000000E+02	M/S	
134	PRESSURE	MISSING PA		
135	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
136	GEOPOTENTIAL	0.8238000000E+05	M**2/S**2	
137	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
138	WIND SPEED	0.1000000000E+02	M/S	
139	PRESSURE	MISSING PA		
140	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
141	GEOPOTENTIAL	0.8532000000E+05	M**2/S**2	
142	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
143	WIND SPEED	0.1000000000E+02	M/S	
144	PRESSURE	MISSING PA		
145	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
146	GEOPOTENTIAL	0.8826000000E+05	M**2/S**2	
147	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
148	WIND SPEED	0.1000000000E+02	M/S	
149	PRESSURE	0.3000000000E+05	PA	
150	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
151	GEOPOTENTIAL	MISSING M**2/S**2		
152	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
153	WIND SPEED	0.1000000000E+02	M/S	
154	PRESSURE	MISSING PA		
155	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
156	GEOPOTENTIAL	0.9120000000E+05	M**2/S**2	
157	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
158	WIND SPEED	0.1100000000E+02	M/S	
159	PRESSURE	MISSING PA		
160	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
161	GEOPOTENTIAL	0.9414000000E+05	M**2/S**2	
162	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
163	WIND SPEED	0.1100000000E+02	M/S	
164	PRESSURE	MISSING PA		
165	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
166	GEOPOTENTIAL	0.9709000000E+05	M**2/S**2	
167	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
168	WIND SPEED	0.1200000000E+02	M/S	
169	PRESSURE	MISSING PA		
170	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
171	GEOPOTENTIAL	0.1000300000E+06	M**2/S**2	
172	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
173	WIND SPEED	0.1500000000E+02	M/S	
174	PRESSURE	0.2500000000E+05	PA	
175	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
176	GEOPOTENTIAL	MISSING M**2/S**2		
177	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
178	WIND SPEED	0.1700000000E+02	M/S	
179	PRESSURE	MISSING PA		
180	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
181	GEOPOTENTIAL	0.1029700000E+06	M**2/S**2	
182	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
183	WIND SPEED	0.1700000000E+02	M/S	
184	PRESSURE	MISSING PA		
185	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
186	GEOPOTENTIAL	0.1059100000E+06	M**2/S**2	
187	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	

188	WIND SPEED	0.1600000000E+02	M/S	
189	PRESSURE	MISSING	PA	
190	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
191	GEOPOTENTIAL	0.1088500000E+06	M**2/S**2	
192	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
193	WIND SPEED	0.1800000000E+02	M/S	
194	PRESSURE	MISSING	PA	
195	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
196	GEOPOTENTIAL	0.1118000000E+06	M**2/S**2	
197	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
198	WIND SPEED	0.2000000000E+02	M/S	
199	PRESSURE	MISSING	PA	
200	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
201	GEOPOTENTIAL	0.1147400000E+06	M**2/S**2	
202	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
203	WIND SPEED	0.1900000000E+02	M/S	
204	PRESSURE	0.2000000000E+05	PA	
205	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
206	GEOPOTENTIAL	MISSING	M**2/S**2	
207	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
208	WIND SPEED	0.1700000000E+02	M/S	
209	PRESSURE	MISSING	PA	
210	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
211	GEOPOTENTIAL	0.1176800000E+06	M**2/S**2	
212	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
213	WIND SPEED	0.1700000000E+02	M/S	
214	PRESSURE	MISSING	PA	
215	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
216	GEOPOTENTIAL	0.1206200000E+06	M**2/S**2	
217	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
218	WIND SPEED	0.1900000000E+02	M/S	
219	PRESSURE	MISSING	PA	
220	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
221	GEOPOTENTIAL	0.1235600000E+06	M**2/S**2	
222	WIND DIRECTION	0.3100000000E+03	DEGREE TRUE	
223	WIND SPEED	0.1600000000E+02	M/S	
224	PRESSURE	MISSING	PA	
225	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
226	GEOPOTENTIAL	0.1265100000E+06	M**2/S**2	
227	WIND DIRECTION	0.3050000000E+03	DEGREE TRUE	
228	WIND SPEED	0.1900000000E+02	M/S	
229	PRESSURE	MISSING	PA	
230	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
231	GEOPOTENTIAL	0.1294500000E+06	M**2/S**2	
232	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
233	WIND SPEED	0.2300000000E+02	M/S	
234	PRESSURE	MISSING	PA	
235	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
236	GEOPOTENTIAL	0.1323900000E+06	M**2/S**2	
237	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
238	WIND SPEED	0.2300000000E+02	M/S	
239	PRESSURE	0.1500000000E+05	PA	
240	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
241	GEOPOTENTIAL	MISSING	M**2/S**2	
242	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
243	WIND SPEED	0.2300000000E+02	M/S	
244	PRESSURE	MISSING	PA	
245	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
246	GEOPOTENTIAL	0.1353300000E+06	M**2/S**2	
247	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
248	WIND SPEED	0.2300000000E+02	M/S	
249	PRESSURE	MISSING	PA	
250	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
251	GEOPOTENTIAL	0.1382700000E+06	M**2/S**2	
252	WIND DIRECTION	0.2900000000E+03	DEGREE TRUE	
253	WIND SPEED	0.2300000000E+02	M/S	
254	PRESSURE	MISSING	PA	
255	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
256	GEOPOTENTIAL	0.1412200000E+06	M**2/S**2	
257	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
258	WIND SPEED	0.2300000000E+02	M/S	
259	PRESSURE	MISSING	PA	
260	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
261	GEOPOTENTIAL	0.1441600000E+06	M**2/S**2	
262	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
263	WIND SPEED	0.2500000000E+02	M/S	
264	PRESSURE	MISSING	PA	
265	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
266	GEOPOTENTIAL	0.1471000000E+06	M**2/S**2	
267	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
268	WIND SPEED	0.2000000000E+02	M/S	
269	PRESSURE	MISSING	PA	
270	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
271	GEOPOTENTIAL	0.1500400000E+06	M**2/S**2	
272	WIND DIRECTION	0.3050000000E+03	DEGREE TRUE	
273	WIND SPEED	0.2000000000E+02	M/S	
274	PRESSURE	MISSING	PA	
275	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
276	GEOPOTENTIAL	0.1529800000E+06	M**2/S**2	
277	WIND DIRECTION	0.3100000000E+03	DEGREE TRUE	
278	WIND SPEED	0.2000000000E+02	M/S	
279	PRESSURE	MISSING	PA	
280	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001

281	GEOPOTENTIAL	0.1559300000E+06	M**2/S**2	
282	WIND DIRECTION	0.3150000000E+03	DEGREE TRUE	
283	WIND SPEED	0.1900000000E+02	M/S	
284	PRESSURE	0.1000000000E+05	PA	
285	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
286	GEOPOTENTIAL	MISSING	M**2/S**2	
287	WIND DIRECTION	0.3150000000E+03	DEGREE TRUE	
288	WIND SPEED	0.1900000000E+02	M/S	
289	PRESSURE	MISSING	PA	
290	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
291	GEOPOTENTIAL	0.1588700000E+06	M**2/S**2	
292	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
293	WIND SPEED	0.1600000000E+02	M/S	
294	PRESSURE	MISSING	PA	
295	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
296	GEOPOTENTIAL	0.1618100000E+06	M**2/S**2	
297	WIND DIRECTION	0.2800000000E+03	DEGREE TRUE	
298	WIND SPEED	0.1500000000E+02	M/S	
299	PRESSURE	MISSING	PA	
300	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
301	GEOPOTENTIAL	0.1647500000E+06	M**2/S**2	
302	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
303	WIND SPEED	0.1600000000E+02	M/S	
304	PRESSURE	MISSING	PA	
305	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
306	GEOPOTENTIAL	0.1676900000E+06	M**2/S**2	
307	WIND DIRECTION	0.2950000000E+03	DEGREE TRUE	
308	WIND SPEED	0.1600000000E+02	M/S	
309	PRESSURE	MISSING	PA	
310	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
311	GEOPOTENTIAL	0.1706400000E+06	M**2/S**2	
312	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
313	WIND SPEED	0.1500000000E+02	M/S	
314	PRESSURE	MISSING	PA	
315	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
316	GEOPOTENTIAL	0.1735800000E+06	M**2/S**2	
317	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
318	WIND SPEED	0.1600000000E+02	M/S	
319	PRESSURE	MISSING	PA	
320	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
321	GEOPOTENTIAL	0.1765200000E+06	M**2/S**2	
322	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
323	WIND SPEED	0.2200000000E+02	M/S	
324	PRESSURE	MISSING	PA	
325	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
326	GEOPOTENTIAL	0.1794600000E+06	M**2/S**2	
327	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
328	WIND SPEED	0.2500000000E+02	M/S	
329	PRESSURE	0.7000000000E+04	PA	
330	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
331	GEOPOTENTIAL	MISSING	M**2/S**2	
332	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
333	WIND SPEED	0.2500000000E+02	M/S	
334	PRESSURE	MISSING	PA	
335	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
336	GEOPOTENTIAL	0.1824000000E+06	M**2/S**2	
337	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
338	WIND SPEED	0.2200000000E+02	M/S	
339	PRESSURE	MISSING	PA	
340	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
341	GEOPOTENTIAL	0.1853500000E+06	M**2/S**2	
342	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
343	WIND SPEED	0.2500000000E+02	M/S	
344	PRESSURE	MISSING	PA	
345	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
346	GEOPOTENTIAL	0.1882900000E+06	M**2/S**2	
347	WIND DIRECTION	0.2850000000E+03	DEGREE TRUE	
348	WIND SPEED	0.2300000000E+02	M/S	
349	PRESSURE	MISSING	PA	
350	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
351	GEOPOTENTIAL	0.2059400000E+06	M**2/S**2	
352	WIND DIRECTION	0.2550000000E+03	DEGREE TRUE	
353	WIND SPEED	0.2000000000E+01	M/S	
354	QUALITY INFORMA	0.0000000000E+00		
355	EXTENDED DELAYE	0.3530000000E+03	NUMERIC	
356	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
357	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
358	DATA PRESENT IN	MISSING	NUMERIC	
359	DATA PRESENT IN	MISSING	NUMERIC	
360	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
361	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
362	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
363	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
364	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
365	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
366	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
367	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
368	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
369	DATA PRESENT IN	MISSING	NUMERIC	
370	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
371	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
372	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
373	DATA PRESENT IN	0.0000000000E+00	NUMERIC	

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ECMWF Technical Notes

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653 DATA PRESENT IN 0.0000000000E+00 NUMERIC
654 DATA PRESENT IN MISSING NUMERIC
655 DATA PRESENT IN 0.0000000000E+00 NUMERIC
656 DATA PRESENT IN 0.0000000000E+00 NUMERIC
657 DATA PRESENT IN 0.0000000000E+00 NUMERIC
658 DATA PRESENT IN 0.0000000000E+00 NUMERIC
659 DATA PRESENT IN MISSING NUMERIC
660 DATA PRESENT IN 0.0000000000E+00 NUMERIC
661 DATA PRESENT IN 0.0000000000E+00 NUMERIC
662 DATA PRESENT IN 0.0000000000E+00 NUMERIC
663 DATA PRESENT IN 0.0000000000E+00 NUMERIC
664 DATA PRESENT IN MISSING NUMERIC
665 DATA PRESENT IN 0.0000000000E+00 NUMERIC
666 DATA PRESENT IN 0.0000000000E+00 NUMERIC
667 DATA PRESENT IN 0.0000000000E+00 NUMERIC
668 DATA PRESENT IN 0.0000000000E+00 NUMERIC
669 DATA PRESENT IN MISSING NUMERIC
670 DATA PRESENT IN 0.0000000000E+00 NUMERIC
671 DATA PRESENT IN 0.0000000000E+00 NUMERIC
672 DATA PRESENT IN 0.0000000000E+00 NUMERIC
673 DATA PRESENT IN 0.0000000000E+00 NUMERIC
674 DATA PRESENT IN MISSING NUMERIC
675 DATA PRESENT IN 0.0000000000E+00 NUMERIC
676 DATA PRESENT IN 0.0000000000E+00 NUMERIC
677 DATA PRESENT IN 0.0000000000E+00 NUMERIC
678 DATA PRESENT IN 0.0000000000E+00 NUMERIC
679 DATA PRESENT IN MISSING NUMERIC
680 DATA PRESENT IN 0.0000000000E+00 NUMERIC
681 DATA PRESENT IN 0.0000000000E+00 NUMERIC
682 DATA PRESENT IN 0.0000000000E+00 NUMERIC
683 DATA PRESENT IN 0.0000000000E+00 NUMERIC
684 DATA PRESENT IN 0.0000000000E+00 NUMERIC
685 DATA PRESENT IN 0.0000000000E+00 NUMERIC
686 DATA PRESENT IN MISSING NUMERIC
687 DATA PRESENT IN 0.0000000000E+00 NUMERIC
688 DATA PRESENT IN 0.0000000000E+00 NUMERIC
689 DATA PRESENT IN MISSING NUMERIC
690 DATA PRESENT IN 0.0000000000E+00 NUMERIC
691 DATA PRESENT IN 0.0000000000E+00 NUMERIC
692 DATA PRESENT IN 0.0000000000E+00 NUMERIC
693 DATA PRESENT IN 0.0000000000E+00 NUMERIC
694 DATA PRESENT IN MISSING NUMERIC
695 DATA PRESENT IN 0.0000000000E+00 NUMERIC
696 DATA PRESENT IN 0.0000000000E+00 NUMERIC
697 DATA PRESENT IN 0.0000000000E+00 NUMERIC
698 DATA PRESENT IN 0.0000000000E+00 NUMERIC
699 DATA PRESENT IN MISSING NUMERIC
700 DATA PRESENT IN 0.0000000000E+00 NUMERIC
701 DATA PRESENT IN 0.0000000000E+00 NUMERIC
702 DATA PRESENT IN 0.0000000000E+00 NUMERIC
703 DATA PRESENT IN 0.0000000000E+00 NUMERIC
704 DATA PRESENT IN MISSING NUMERIC
705 DATA PRESENT IN 0.0000000000E+00 NUMERIC
706 DATA PRESENT IN 0.0000000000E+00 NUMERIC
707 DATA PRESENT IN 0.0000000000E+00 NUMERIC
708 DATA PRESENT IN 0.0000000000E+00 NUMERIC
709 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
710 GENERATING APPL 0.1000000000E+01 CODE TABLE 1032
711 EXTENDED DELAYE 0.2830000000E+03 NUMERIC
712 % CONFIDENCE 0.7000000000E+02 NUMERIC
713 % CONFIDENCE 0.7000000000E+02 NUMERIC
714 % CONFIDENCE 0.7000000000E+02 NUMERIC
715 % CONFIDENCE 0.7000000000E+02 NUMERIC
716 % CONFIDENCE 0.7000000000E+02 NUMERIC
717 % CONFIDENCE 0.7000000000E+02 NUMERIC
718 % CONFIDENCE 0.7000000000E+02 NUMERIC
719 % CONFIDENCE 0.7000000000E+02 NUMERIC
720 % CONFIDENCE 0.7000000000E+02 NUMERIC
721 % CONFIDENCE 0.7000000000E+02 NUMERIC
722 % CONFIDENCE 0.7000000000E+02 NUMERIC
723 % CONFIDENCE 0.7000000000E+02 NUMERIC
724 % CONFIDENCE 0.7500000000E+02 NUMERIC
725 % CONFIDENCE 0.7000000000E+02 NUMERIC
726 % CONFIDENCE 0.7000000000E+02 NUMERIC
727 % CONFIDENCE 0.7000000000E+02 NUMERIC
728 % CONFIDENCE 0.7500000000E+02 NUMERIC
729 % CONFIDENCE 0.7000000000E+02 NUMERIC
730 % CONFIDENCE 0.7000000000E+02 NUMERIC
731 % CONFIDENCE 0.7000000000E+02 NUMERIC
732 % CONFIDENCE 0.7500000000E+02 NUMERIC
733 % CONFIDENCE 0.7000000000E+02 NUMERIC
734 % CONFIDENCE 0.7000000000E+02 NUMERIC
735 % CONFIDENCE 0.7000000000E+02 NUMERIC
736 % CONFIDENCE 0.7500000000E+02 NUMERIC
737 % CONFIDENCE 0.7000000000E+02 NUMERIC
738 % CONFIDENCE 0.7000000000E+02 NUMERIC
739 % CONFIDENCE 0.7500000000E+02 NUMERIC
740 % CONFIDENCE 0.7000000000E+02 NUMERIC
741 % CONFIDENCE 0.7000000000E+02 NUMERIC
742 % CONFIDENCE 0.7000000000E+02 NUMERIC
743 % CONFIDENCE 0.7000000000E+02 NUMERIC
744 % CONFIDENCE 0.7500000000E+02 NUMERIC
745 % CONFIDENCE 0.7000000000E+02 NUMERIC
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932	%	CONFIDENCE	0.7500000000E+02	NUMERIC
933	%	CONFIDENCE	0.7000000000E+02	NUMERIC
934	%	CONFIDENCE	0.7000000000E+02	NUMERIC
935	%	CONFIDENCE	0.7000000000E+02	NUMERIC
936	%	CONFIDENCE	0.7500000000E+02	NUMERIC
937	%	CONFIDENCE	0.7000000000E+02	NUMERIC
938	%	CONFIDENCE	0.7000000000E+02	NUMERIC
939	%	CONFIDENCE	0.7500000000E+02	NUMERIC
940	%	CONFIDENCE	0.7000000000E+02	NUMERIC
941	%	CONFIDENCE	0.7000000000E+02	NUMERIC
942	%	CONFIDENCE	0.7000000000E+02	NUMERIC
943	%	CONFIDENCE	0.7000000000E+02	NUMERIC
944	%	CONFIDENCE	0.7500000000E+02	NUMERIC
945	%	CONFIDENCE	0.7000000000E+02	NUMERIC
946	%	CONFIDENCE	0.7000000000E+02	NUMERIC
947	%	CONFIDENCE	0.7000000000E+02	NUMERIC
948	%	CONFIDENCE	0.7500000000E+02	NUMERIC
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950	%	CONFIDENCE	0.7000000000E+02	NUMERIC
951	%	CONFIDENCE	0.7000000000E+02	NUMERIC
952	%	CONFIDENCE	0.7500000000E+02	NUMERIC
953	%	CONFIDENCE	0.7000000000E+02	NUMERIC
954	%	CONFIDENCE	0.7000000000E+02	NUMERIC
955	%	CONFIDENCE	0.7000000000E+02	NUMERIC
956	%	CONFIDENCE	0.7500000000E+02	NUMERIC
957	%	CONFIDENCE	0.7000000000E+02	NUMERIC
958	%	CONFIDENCE	0.7000000000E+02	NUMERIC
959	%	CONFIDENCE	0.7000000000E+02	NUMERIC
960	%	CONFIDENCE	0.7500000000E+02	NUMERIC
961	%	CONFIDENCE	0.7000000000E+02	NUMERIC
962	%	CONFIDENCE	0.7000000000E+02	NUMERIC
963	%	CONFIDENCE	0.7000000000E+02	NUMERIC
964	%	CONFIDENCE	0.7500000000E+02	NUMERIC
965	%	CONFIDENCE	0.7000000000E+02	NUMERIC
966	%	CONFIDENCE	0.7000000000E+02	NUMERIC
967	%	CONFIDENCE	0.7000000000E+02	NUMERIC
968	%	CONFIDENCE	0.7500000000E+02	NUMERIC
969	%	CONFIDENCE	0.7000000000E+02	NUMERIC
970	%	CONFIDENCE	0.7000000000E+02	NUMERIC
971	%	CONFIDENCE	0.7000000000E+02	NUMERIC
972	%	CONFIDENCE	0.7500000000E+02	NUMERIC
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977	%	CONFIDENCE	0.7000000000E+02	NUMERIC
978	%	CONFIDENCE	0.7000000000E+02	NUMERIC
979	%	CONFIDENCE	0.7000000000E+02	NUMERIC
980	%	CONFIDENCE	0.7500000000E+02	NUMERIC
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984	%	CONFIDENCE	0.7500000000E+02	NUMERIC
985	%	CONFIDENCE	0.7000000000E+02	NUMERIC
986	%	CONFIDENCE	0.7000000000E+02	NUMERIC
987	%	CONFIDENCE	0.7000000000E+02	NUMERIC
988	%	CONFIDENCE	0.7500000000E+02	NUMERIC
989	%	CONFIDENCE	0.7000000000E+02	NUMERIC
990	%	CONFIDENCE	0.7000000000E+02	NUMERIC
991	%	CONFIDENCE	0.7000000000E+02	NUMERIC
992	%	CONFIDENCE	0.7500000000E+02	NUMERIC
993	%	CONFIDENCE	0.7000000000E+02	NUMERIC
994	%	CONFIDENCE	0.7000000000E+02	NUMERIC

## 3.22 Wind profiler (USA)

RDB type 4, subtype 95

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ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 750
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 2
    BUFR MESSAGE SUBTYPE              95
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    4
    RDB DATA SUBTYPE                 95
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                        40.08
    LONGITUDE 1                       -100.65
    IDENTIFIER                         74433
    TOTAL BUFR MESSAGE LENGTH         750
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)               10
    MINUTE (RDB INSERTION)             24
    SECOND (RDB INSERTION)             58
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                 10
    MINUTE (MDB ARRIVAL)               20
    SECOND (MDB ARRIVAL)                7
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)       130
    RESERVED                           0
    NUMBER OF DATA SUBSETS            1
    FLAG (DATA TYPE/DATA COMPRESSION)  128

    DATA DESCRIPTORS (UNEXPANDED)

    1 001001
    2 001002
    3 005002

```

4 006002  
5 007001  
6 004001  
7 004002  
8 004003  
9 004004  
10 004005  
11 008021  
12 004025  
13 011002  
14 011001  
15 010051  
16 012001  
17 013014  
18 013003  
19 025033  
20 120036  
21 007006  
22 025032  
23 025034  
24 201116  
25 008022  
26 201000  
27 011003  
28 011004  
29 201127  
30 011050  
31 201000  
32 201116  
33 008022  
34 201000  
35 201129  
36 206008  
37 021192  
38 201000  
39 011006  
40 011051  
41 120007  
42 007006  
43 025032  
44 025034  
45 201116  
46 008022  
47 201000  
48 011003  
49 011004  
50 201127  
51 011050  
52 201000  
53 201116  
54 008022  
55 201000  
56 201129  
57 206008  
58 021192  
59 201000  
60 011006  
61 011051

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 005002 LATITUDE (COARSE ACCURACY)  
4 006002 LONGITUDE (COARSE ACCURACY)  
5 007001 HEIGHT OF STATION  
6 004001 YEAR  
7 004002 MONTH  
8 004003 DAY  
9 004004 HOUR  
10 004005 MINUTE  
11 008021 TIME SIGNIFICANCE  
12 004025 TIME PERIOD OR DISPLACEMENT  
13 011002 WIND SPEED  
14 011001 WIND DIRECTION  
15 010051 PRESSURE REDUCED TO MEAN SEA LEVEL  
16 012001 TEMPERATURE/DRY BULB TEMPERATURE  
17 013014 RAINFALL/WATER EQUIVALENT OF SNOW (AVERAGE RATE)  
18 013003 RELATIVE HUMIDITY  
19 025033 WIND PROFILER SUBMODE INFORMATION  
20 007006 HEIGHT ABOVE STATION  
21 025032 WIND PROFILER MODE INFORMATION  
22 025034 WIND PROFILER QUALITY CONTROL TEST RESULTS  
23 008022 TOTAL NUMBER (WITH RESPECT TO ACCUMULATION OR AVERAGE)  
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31 007006 HEIGHT ABOVE STATION



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STARTING SUBSET TO BE PRINTED : 1
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6	YEAR	0.2001000000E+04	YEAR	
7	MONTH	0.2000000000E+01	MONTH	
8	DAY	0.1000000000E+01	DAY	
9	HOURL	0.1000000000E+02	HOURL	
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11	TIME SIGNIFICAN	0.2000000000E+01	CODE TABLE	8021
12	TIME PERIOD OR	-0.6000000000E+02	MINUTE	
13	WIND SPEED	MISSING	M/S	
14	WIND DIRECTION	MISSING	DEGREE TRUE	
15	PRESSURE REDUCE	0.1022900000E+06	PA	
16	TEMPERATURE/DRY	0.2684000000E+03	K	
17	RAINFALL/WATER	MISSING	KG/(M**2)S	
18	RELATIVE HUMIDI	0.7800000000E+02	%	
19	WIND PROFILER S	0.0000000000E+00	CODE TABLE	25033
20	HEIGHT ABOVE ST	0.5000000000E+03	M	
21	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
22	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
23	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
24	U-COMPONENT	0.2400000000E+01	M/S	
25	V-COMPONENT	-0.9200000000E+01	M/S	
26	STANDARD DEVIAT	0.2400000000E+01	M/S	
27	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
28	UNKNOWN	0.5000000000E+02	UNKNOWN	
29	W-COMPONENT	0.8000000000E-01	M/S	
30	STANDARD DEVIAT	0.3000000000E+00	M/S	
31	HEIGHT ABOVE ST	0.7500000000E+03	M	
32	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
33	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
34	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
35	U-COMPONENT	0.4900000000E+01	M/S	
36	V-COMPONENT	-0.1140000000E+02	M/S	
37	STANDARD DEVIAT	0.4000000000E+01	M/S	
38	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
39	UNKNOWN	0.6100000000E+02	UNKNOWN	
40	W-COMPONENT	0.2000000000E-01	M/S	
41	STANDARD DEVIAT	0.4000000000E+00	M/S	
42	HEIGHT ABOVE ST	0.1000000000E+04	M	
43	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
44	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
45	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
46	U-COMPONENT	0.7800000000E+01	M/S	
47	V-COMPONENT	-0.1040000000E+02	M/S	
48	STANDARD DEVIAT	0.6400000000E+01	M/S	
49	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
50	UNKNOWN	0.6900000000E+02	UNKNOWN	
51	W-COMPONENT	0.1000000000E-01	M/S	
52	STANDARD DEVIAT	0.5000000000E+00	M/S	
53	HEIGHT ABOVE ST	0.1250000000E+04	M	
54	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
55	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
56	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
57	U-COMPONENT	0.1020000000E+02	M/S	
58	V-COMPONENT	-0.6700000000E+01	M/S	
59	STANDARD DEVIAT	0.6800000000E+01	M/S	
60	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
61	UNKNOWN	0.7000000000E+02	UNKNOWN	
62	W-COMPONENT	0.0000000000E+00	M/S	
63	STANDARD DEVIAT	0.5000000000E+00	M/S	
64	HEIGHT ABOVE ST	0.1500000000E+04	M	
65	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
66	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
67	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
68	U-COMPONENT	0.1100000000E+02	M/S	
69	V-COMPONENT	-0.4000000000E+01	M/S	
70	STANDARD DEVIAT	0.6000000000E+01	M/S	
71	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
72	UNKNOWN	0.6800000000E+02	UNKNOWN	
73	W-COMPONENT	0.4000000000E-01	M/S	
74	STANDARD DEVIAT	0.5000000000E+00	M/S	
75	HEIGHT ABOVE ST	0.1750000000E+04	M	
76	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
77	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
78	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
79	U-COMPONENT	0.1200000000E+02	M/S	
80	V-COMPONENT	-0.5000000000E+01	M/S	
81	STANDARD DEVIAT	0.5000000000E+01	M/S	
82	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
83	UNKNOWN	0.6400000000E+02	UNKNOWN	
84	W-COMPONENT	-0.2000000000E-01	M/S	
85	STANDARD DEVIAT	0.4000000000E+00	M/S	
86	HEIGHT ABOVE ST	0.2000000000E+04	M	
87	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
88	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
89	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
90	U-COMPONENT	0.1530000000E+02	M/S	
91	V-COMPONENT	-0.5700000000E+01	M/S	
92	STANDARD DEVIAT	0.2300000000E+01	M/S	
93	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
94	UNKNOWN	0.6200000000E+02	UNKNOWN	

95	W-COMPONENT	-0.4000000000E-01	M/S	
96	STANDARD DEVIAT	0.3000000000E+00	M/S	
97	HEIGHT ABOVE ST	0.2250000000E+04	M	
98	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
99	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
100	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
101	U-COMPONENT	0.1730000000E+02	M/S	
102	V-COMPONENT	-0.5800000000E+01	M/S	
103	STANDARD DEVIAT	0.1700000000E+01	M/S	
104	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
105	UNKNOWN	0.6200000000E+02	UNKNOWN	
106	W-COMPONENT	-0.3000000000E-01	M/S	
107	STANDARD DEVIAT	0.4000000000E+00	M/S	
108	HEIGHT ABOVE ST	0.2500000000E+04	M	
109	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
110	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
111	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
112	U-COMPONENT	0.1620000000E+02	M/S	
113	V-COMPONENT	-0.6700000000E+01	M/S	
114	STANDARD DEVIAT	0.1900000000E+01	M/S	
115	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
116	UNKNOWN	0.6300000000E+02	UNKNOWN	
117	W-COMPONENT	-0.5000000000E-01	M/S	
118	STANDARD DEVIAT	0.4000000000E+00	M/S	
119	HEIGHT ABOVE ST	0.2750000000E+04	M	
120	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
121	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
122	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
123	U-COMPONENT	0.1460000000E+02	M/S	
124	V-COMPONENT	-0.7200000000E+01	M/S	
125	STANDARD DEVIAT	0.1300000000E+01	M/S	
126	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
127	UNKNOWN	0.6200000000E+02	UNKNOWN	
128	W-COMPONENT	-0.3000000000E-01	M/S	
129	STANDARD DEVIAT	0.4000000000E+00	M/S	
130	HEIGHT ABOVE ST	0.3000000000E+04	M	
131	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
132	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
133	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
134	U-COMPONENT	0.1280000000E+02	M/S	
135	V-COMPONENT	-0.6500000000E+01	M/S	
136	STANDARD DEVIAT	0.1400000000E+01	M/S	
137	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
138	UNKNOWN	0.6000000000E+02	UNKNOWN	
139	W-COMPONENT	-0.4000000000E-01	M/S	
140	STANDARD DEVIAT	0.4000000000E+00	M/S	
141	HEIGHT ABOVE ST	0.3250000000E+04	M	
142	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
143	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
144	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
145	U-COMPONENT	0.1250000000E+02	M/S	
146	V-COMPONENT	-0.6500000000E+01	M/S	
147	STANDARD DEVIAT	0.1000000000E+01	M/S	
148	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
149	UNKNOWN	0.6100000000E+02	UNKNOWN	
150	W-COMPONENT	-0.1000000000E-01	M/S	
151	STANDARD DEVIAT	0.4000000000E+00	M/S	
152	HEIGHT ABOVE ST	0.3500000000E+04	M	
153	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
154	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
155	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
156	U-COMPONENT	0.1280000000E+02	M/S	
157	V-COMPONENT	-0.7500000000E+01	M/S	
158	STANDARD DEVIAT	0.1000000000E+01	M/S	
159	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
160	UNKNOWN	0.6000000000E+02	UNKNOWN	
161	W-COMPONENT	0.8000000000E-01	M/S	
162	STANDARD DEVIAT	0.4000000000E+00	M/S	
163	HEIGHT ABOVE ST	0.3750000000E+04	M	
164	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
165	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
166	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
167	U-COMPONENT	0.1390000000E+02	M/S	
168	V-COMPONENT	-0.7800000000E+01	M/S	
169	STANDARD DEVIAT	0.1200000000E+01	M/S	
170	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
171	UNKNOWN	0.5900000000E+02	UNKNOWN	
172	W-COMPONENT	0.1200000000E+00	M/S	
173	STANDARD DEVIAT	0.4000000000E+00	M/S	
174	HEIGHT ABOVE ST	0.4000000000E+04	M	
175	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
176	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
177	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
178	U-COMPONENT	0.1510000000E+02	M/S	
179	V-COMPONENT	-0.7400000000E+01	M/S	
180	STANDARD DEVIAT	0.1500000000E+01	M/S	
181	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
182	UNKNOWN	0.5600000000E+02	UNKNOWN	
183	W-COMPONENT	0.1500000000E+00	M/S	
184	STANDARD DEVIAT	0.4000000000E+00	M/S	
185	HEIGHT ABOVE ST	0.4250000000E+04	M	
186	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
187	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034

188	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
189	U-COMPONENT	0.1700000000E+02	M/S	
190	V-COMPONENT	-0.7100000000E+01	M/S	
191	STANDARD DEVIAT	0.2000000000E+01	M/S	
192	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
193	UNKNOWN	0.5400000000E+02	UNKNOWN	
194	W-COMPONENT	0.2300000000E+00	M/S	
195	STANDARD DEVIAT	0.5000000000E+00	M/S	
196	HEIGHT ABOVE ST	0.4500000000E+04	M	
197	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
198	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
199	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
200	U-COMPONENT	0.1880000000E+02	M/S	
201	V-COMPONENT	-0.6600000000E+01	M/S	
202	STANDARD DEVIAT	0.1900000000E+01	M/S	
203	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
204	UNKNOWN	0.5200000000E+02	UNKNOWN	
205	W-COMPONENT	0.2700000000E+00	M/S	
206	STANDARD DEVIAT	0.5000000000E+00	M/S	
207	HEIGHT ABOVE ST	0.4750000000E+04	M	
208	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
209	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
210	TOTAL NUMBER(WI	0.6000000000E+01	NUMERIC	
211	U-COMPONENT	0.1880000000E+02	M/S	
212	V-COMPONENT	-0.5800000000E+01	M/S	
213	STANDARD DEVIAT	0.2300000000E+01	M/S	
214	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
215	UNKNOWN	0.5100000000E+02	UNKNOWN	
216	W-COMPONENT	0.4000000000E-01	M/S	
217	STANDARD DEVIAT	0.6000000000E+00	M/S	
218	HEIGHT ABOVE ST	0.5000000000E+04	M	
219	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
220	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
221	TOTAL NUMBER(WI	0.5000000000E+01	NUMERIC	
222	U-COMPONENT	0.2310000000E+02	M/S	
223	V-COMPONENT	-0.6200000000E+01	M/S	
224	STANDARD DEVIAT	0.1500000000E+01	M/S	
225	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
226	UNKNOWN	0.5400000000E+02	UNKNOWN	
227	W-COMPONENT	0.2000000000E-01	M/S	
228	STANDARD DEVIAT	0.6000000000E+00	M/S	
229	HEIGHT ABOVE ST	0.5250000000E+04	M	
230	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
231	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
232	TOTAL NUMBER(WI	0.6000000000E+01	NUMERIC	
233	U-COMPONENT	0.2380000000E+02	M/S	
234	V-COMPONENT	-0.5300000000E+01	M/S	
235	STANDARD DEVIAT	0.2300000000E+01	M/S	
236	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
237	UNKNOWN	0.5200000000E+02	UNKNOWN	
238	W-COMPONENT	0.9000000000E-01	M/S	
239	STANDARD DEVIAT	0.6000000000E+00	M/S	
240	HEIGHT ABOVE ST	0.5500000000E+04	M	
241	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
242	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
243	TOTAL NUMBER(WI	0.6000000000E+01	NUMERIC	
244	U-COMPONENT	0.2570000000E+02	M/S	
245	V-COMPONENT	-0.6700000000E+01	M/S	
246	STANDARD DEVIAT	0.1900000000E+01	M/S	
247	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
248	UNKNOWN	0.4900000000E+02	UNKNOWN	
249	W-COMPONENT	0.1200000000E+00	M/S	
250	STANDARD DEVIAT	0.6000000000E+00	M/S	
251	HEIGHT ABOVE ST	0.5750000000E+04	M	
252	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
253	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
254	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
255	U-COMPONENT	0.2630000000E+02	M/S	
256	V-COMPONENT	-0.4700000000E+01	M/S	
257	STANDARD DEVIAT	0.2000000000E+01	M/S	
258	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
259	UNKNOWN	0.4300000000E+02	UNKNOWN	
260	W-COMPONENT	0.2100000000E+00	M/S	
261	STANDARD DEVIAT	0.7000000000E+00	M/S	
262	HEIGHT ABOVE ST	0.6000000000E+04	M	
263	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
264	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
265	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
266	U-COMPONENT	0.2710000000E+02	M/S	
267	V-COMPONENT	-0.2600000000E+01	M/S	
268	STANDARD DEVIAT	0.2000000000E+01	M/S	
269	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
270	UNKNOWN	0.4400000000E+02	UNKNOWN	
271	W-COMPONENT	0.1800000000E+00	M/S	
272	STANDARD DEVIAT	0.6000000000E+00	M/S	
273	HEIGHT ABOVE ST	0.6250000000E+04	M	
274	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
275	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
276	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
277	U-COMPONENT	0.2740000000E+02	M/S	
278	V-COMPONENT	-0.7000000000E+00	M/S	
279	STANDARD DEVIAT	0.2200000000E+01	M/S	
280	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	



281	UNKNOWN	0.4300000000E+02	UNKNOWN	
282	W-COMPONENT	0.2100000000E+00	M/S	
283	STANDARD DEVIAT	0.6000000000E+00	M/S	
284	HEIGHT ABOVE ST	0.6500000000E+04	M	
285	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
286	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
287	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
288	U-COMPONENT	0.2680000000E+02	M/S	
289	V-COMPONENT	0.2800000000E+01	M/S	
290	STANDARD DEVIAT	0.1700000000E+01	M/S	
291	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
292	UNKNOWN	0.4300000000E+02	UNKNOWN	
293	W-COMPONENT	0.2500000000E+00	M/S	
294	STANDARD DEVIAT	0.7000000000E+00	M/S	
295	HEIGHT ABOVE ST	0.6750000000E+04	M	
296	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
297	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
298	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
299	U-COMPONENT	0.2690000000E+02	M/S	
300	V-COMPONENT	0.5000000000E+01	M/S	
301	STANDARD DEVIAT	0.1900000000E+01	M/S	
302	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
303	UNKNOWN	0.4500000000E+02	UNKNOWN	
304	W-COMPONENT	0.2300000000E+00	M/S	
305	STANDARD DEVIAT	0.6000000000E+00	M/S	
306	HEIGHT ABOVE ST	0.7000000000E+04	M	
307	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
308	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
309	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
310	U-COMPONENT	0.2640000000E+02	M/S	
311	V-COMPONENT	0.8800000000E+01	M/S	
312	STANDARD DEVIAT	0.2800000000E+01	M/S	
313	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
314	UNKNOWN	0.4400000000E+02	UNKNOWN	
315	W-COMPONENT	0.1000000000E-01	M/S	
316	STANDARD DEVIAT	0.6000000000E+00	M/S	
317	HEIGHT ABOVE ST	0.7250000000E+04	M	
318	WIND PROFILER M	0.1000000000E+01	CODE TABLE	25032
319	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
320	TOTAL NUMBER(WI	0.7000000000E+01	NUMERIC	
321	U-COMPONENT	0.2690000000E+02	M/S	
322	V-COMPONENT	0.9500000000E+01	M/S	
323	STANDARD DEVIAT	0.2300000000E+01	M/S	
324	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
325	UNKNOWN	0.4100000000E+02	UNKNOWN	
326	W-COMPONENT	0.2000000000E-01	M/S	
327	STANDARD DEVIAT	0.6000000000E+00	M/S	
328	HEIGHT ABOVE ST	0.7500000000E+04	M	
329	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
330	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
331	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
332	U-COMPONENT	0.2710000000E+02	M/S	
333	V-COMPONENT	0.6000000000E+01	M/S	
334	STANDARD DEVIAT	0.3900000000E+01	M/S	
335	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
336	UNKNOWN	0.5300000000E+02	UNKNOWN	
337	W-COMPONENT	0.6000000000E-01	M/S	
338	STANDARD DEVIAT	0.6000000000E+00	M/S	
339	HEIGHT ABOVE ST	0.7750000000E+04	M	
340	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
341	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
342	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
343	U-COMPONENT	0.2640000000E+02	M/S	
344	V-COMPONENT	0.4100000000E+01	M/S	
345	STANDARD DEVIAT	0.4600000000E+01	M/S	
346	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
347	UNKNOWN	0.5300000000E+02	UNKNOWN	
348	W-COMPONENT	0.3000000000E-01	M/S	
349	STANDARD DEVIAT	0.6000000000E+00	M/S	
350	HEIGHT ABOVE ST	0.8000000000E+04	M	
351	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
352	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
353	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
354	U-COMPONENT	0.2510000000E+02	M/S	
355	V-COMPONENT	0.1800000000E+01	M/S	
356	STANDARD DEVIAT	0.4700000000E+01	M/S	
357	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
358	UNKNOWN	0.5300000000E+02	UNKNOWN	
359	W-COMPONENT	0.0000000000E+00	M/S	
360	STANDARD DEVIAT	0.6000000000E+00	M/S	
361	HEIGHT ABOVE ST	0.8250000000E+04	M	
362	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
363	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
364	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
365	U-COMPONENT	0.2380000000E+02	M/S	
366	V-COMPONENT	0.1000000000E+00	M/S	
367	STANDARD DEVIAT	0.4300000000E+01	M/S	
368	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
369	UNKNOWN	0.5300000000E+02	UNKNOWN	
370	W-COMPONENT	-0.3000000000E-01	M/S	
371	STANDARD DEVIAT	0.6000000000E+00	M/S	
372	HEIGHT ABOVE ST	0.8500000000E+04	M	
373	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032

374	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
375	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
376	U-COMPONENT	0.2260000000E+02	M/S	
377	V-COMPONENT	-0.1200000000E+01	M/S	
378	STANDARD DEVIAT	0.4000000000E+01	M/S	
379	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
380	UNKNOWN	0.5300000000E+02	UNKNOWN	
381	W-COMPONENT	-0.7000000000E-01	M/S	
382	STANDARD DEVIAT	0.5000000000E+00	M/S	
383	HEIGHT ABOVE ST	0.8750000000E+04	M	
384	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
385	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
386	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
387	U-COMPONENT	0.2130000000E+02	M/S	
388	V-COMPONENT	-0.2400000000E+01	M/S	
389	STANDARD DEVIAT	0.4100000000E+01	M/S	
390	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
391	UNKNOWN	0.5300000000E+02	UNKNOWN	
392	W-COMPONENT	-0.1000000000E+00	M/S	
393	STANDARD DEVIAT	0.5000000000E+00	M/S	
394	HEIGHT ABOVE ST	0.9000000000E+04	M	
395	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
396	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
397	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
398	U-COMPONENT	0.2000000000E+02	M/S	
399	V-COMPONENT	-0.3900000000E+01	M/S	
400	STANDARD DEVIAT	0.4400000000E+01	M/S	
401	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
402	UNKNOWN	0.5300000000E+02	UNKNOWN	
403	W-COMPONENT	-0.1400000000E+00	M/S	
404	STANDARD DEVIAT	0.5000000000E+00	M/S	
405	HEIGHT ABOVE ST	0.9250000000E+04	M	
406	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
407	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
408	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
409	U-COMPONENT	0.1960000000E+02	M/S	
410	V-COMPONENT	-0.4500000000E+01	M/S	
411	STANDARD DEVIAT	0.3900000000E+01	M/S	
412	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
413	UNKNOWN	0.5200000000E+02	UNKNOWN	
414	W-COMPONENT	-0.2000000000E+00	M/S	
415	STANDARD DEVIAT	0.5000000000E+00	M/S	
416	HEIGHT ABOVE ST	0.1025000000E+05	M	
417	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
418	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
419	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
420	U-COMPONENT	0.2060000000E+02	M/S	
421	V-COMPONENT	-0.3100000000E+01	M/S	
422	STANDARD DEVIAT	0.3900000000E+01	M/S	
423	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
424	UNKNOWN	0.4900000000E+02	UNKNOWN	
425	W-COMPONENT	-0.1900000000E+00	M/S	
426	STANDARD DEVIAT	0.5000000000E+00	M/S	
427	HEIGHT ABOVE ST	0.1125000000E+05	M	
428	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
429	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
430	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
431	U-COMPONENT	0.2420000000E+02	M/S	
432	V-COMPONENT	-0.3600000000E+01	M/S	
433	STANDARD DEVIAT	0.4100000000E+01	M/S	
434	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
435	UNKNOWN	0.4600000000E+02	UNKNOWN	
436	W-COMPONENT	0.3000000000E-01	M/S	
437	STANDARD DEVIAT	0.6000000000E+00	M/S	
438	HEIGHT ABOVE ST	0.1225000000E+05	M	
439	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
440	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
441	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
442	U-COMPONENT	0.1960000000E+02	M/S	
443	V-COMPONENT	-0.4200000000E+01	M/S	
444	STANDARD DEVIAT	0.4400000000E+01	M/S	
445	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
446	UNKNOWN	0.4500000000E+02	UNKNOWN	
447	W-COMPONENT	0.8000000000E-01	M/S	
448	STANDARD DEVIAT	0.5000000000E+00	M/S	
449	HEIGHT ABOVE ST	0.1325000000E+05	M	
450	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
451	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
452	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
453	U-COMPONENT	0.1690000000E+02	M/S	
454	V-COMPONENT	-0.2600000000E+01	M/S	
455	STANDARD DEVIAT	0.3800000000E+01	M/S	
456	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
457	UNKNOWN	0.4300000000E+02	UNKNOWN	
458	W-COMPONENT	0.2000000000E-01	M/S	
459	STANDARD DEVIAT	0.4000000000E+00	M/S	
460	HEIGHT ABOVE ST	0.1425000000E+05	M	
461	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
462	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
463	TOTAL NUMBER(WI	0.8000000000E+01	NUMERIC	
464	U-COMPONENT	0.1700000000E+02	M/S	
465	V-COMPONENT	0.1600000000E+01	M/S	
466	STANDARD DEVIAT	0.3700000000E+01	M/S	

467	TOTAL NUMBER (WI	0.8000000000E+01	NUMERIC	
468	UNKNOWN	0.4100000000E+02	UNKNOWN	
469	W-COMPONENT	0.4000000000E-01	M/S	
470	STANDARD DEVIAT	0.5000000000E+00	M/S	
471	HEIGHT ABOVE ST	0.1525000000E+05	M	
472	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
473	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
474	TOTAL NUMBER (WI	0.8000000000E+01	NUMERIC	
475	U-COMPONENT	0.1390000000E+02	M/S	
476	V-COMPONENT	-0.1200000000E+01	M/S	
477	STANDARD DEVIAT	0.3900000000E+01	M/S	
478	TOTAL NUMBER (WI	0.8000000000E+01	NUMERIC	
479	UNKNOWN	0.4300000000E+02	UNKNOWN	
480	W-COMPONENT	0.9000000000E-01	M/S	
481	STANDARD DEVIAT	0.5000000000E+00	M/S	
482	HEIGHT ABOVE ST	0.1625000000E+05	M	
483	WIND PROFILER M	0.2000000000E+01	CODE TABLE	25032
484	WIND PROFILER Q	0.0000000000E+00	FLAG TABLE	25034
485	TOTAL NUMBER (WI	0.7000000000E+01	NUMERIC	
486	U-COMPONENT	0.1210000000E+02	M/S	
487	V-COMPONENT	-0.1100000000E+01	M/S	
488	STANDARD DEVIAT	0.3800000000E+01	M/S	
489	TOTAL NUMBER (WI	0.8000000000E+01	NUMERIC	
490	UNKNOWN	0.3900000000E+02	UNKNOWN	
491	W-COMPONENT	-0.3000000000E-01	M/S	
492	STANDARD DEVIAT	0.5000000000E+00	M/S	

### 3.23 Wind profiler (Europe)

RDB type 4, subtype 96

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 310
    BUFR EDITION NUMBER                  3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                  3
    ORIGINATING SUB-CENTRE               0
    ORIGINATING CENTRE                   98
    UPDATE SEQUENCE NUMBER               0
    FLAG (PRESENCE OF SECTION 2)        128
    BUFR MESSAGE TYPE                    2
    BUFR MESSAGE SUBTYPE                 96
    VERSION NUMBER OF LOCAL TABLE       1
    YEAR                                 1
    MONTH                                2
    DAY                                  1
    HOUR                                 9
    MINUTE                               41
    VERSION NUMBER OF MASTER TABLE      6
    BUFR MASTER TABLE                   0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                   52

    REPORT DATA BASE KEY

    RDB DATA TYPE                       4
    RDB DATA SUBTYPE                     96
    YEAR                                  2001
    MONTH                                 2
    DAY                                  1
    HOUR                                 9
    MINUTE                                14
    SECOND                                0
    LATITUDE 1                           52.21
    LONGITUDE 1                          14.13
    IDENTIFIER                            10394
    TOTAL BUFR MESSAGE LENGTH             310
    DAY (RDB INSERTION)                   1
    HOUR (RDB INSERTION)                   9
    MINUTE (RDB INSERTION)                 59
    SECOND (RDB INSERTION)                 50
    DAY (MDB ARRIVAL)                     1
    HOUR (MDB ARRIVAL)                     9
    MINUTE (MDB ARRIVAL)                   59
    SECOND (MDB ARRIVAL)                   19
    CORRECTION NUMBER                     0
    PART OF MESSAGE                       1
    CORRECTION NUMBER                     0
    PART OF MESSAGE                       0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                       0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                       0
    CORRECTION NUMBER                     0
    PART OF MESSAGE                       0
    QUALITY CONTROL % CONF                 70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)          74
    RESERVED                              0
    NUMBER OF DATA SUBSETS               1
    FLAG (DATA TYPE/DATA COMPRESSION)    128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301032
    2 002003
```

```

3  002101
4  201130
5  002106
6  201000
7  201132
8  202130
9  002121
10 202000
11 201000
12 201133
13 202129
14 025001
15 202000
16 201000
17 025020
18 025021
19 008021
20 004025
21 111000
22 031001
23 007007
24 204001
25 031021
26 011001
27 204000
28 011002
29 204001
30 031021
31 011006
32 204000
33 021030

```

## DATA DESCRIPTORS (EXPANDED)

```

1  001001  WMO BLOCK NUMBER
2  001002  WMO STATION NUMBER
3  002001  TYPE OF STATION
4  004001  YEAR
5  004002  MONTH
6  004003  DAY
7  004004  HOUR
8  004005  MINUTE
9  005002  LATITUDE (COARSE ACCURACY)
10 006002  LONGITUDE (COARSE ACCURACY)
11 007001  HEIGHT OF STATION
12 002003  TYPE OF MEASURING EQUIPMENT USED
13 002101  TYPE OF ANTENNA
14 002106  3-dB BEAMWIDTH
15 002121  MEAN FREQUENCY
16 025001  RANGE-GATE LENGTH
17 025020  MEAN SPEED ESTIMATION
18 025021  WIND COMPUTATION ENHANCEMENT
19 008021  TIME SIGNIFICANCE
20 004025  TIME PERIOD OR DISPLACEMENT
21 031001  DELAYED DESCRIPTOR REPLICATION FACTOR
22 007007  HEIGHT
23 031021  ASSOCIATED FIELD SIGNIFICANCE
24 999999  ASSOCIATED FIELD
25 011001  WIND DIRECTION
26 011002  WIND SPEED
27 031021  ASSOCIATED FIELD SIGNIFICANCE
28 999999  ASSOCIATED FIELD
29 011006  W-COMPONENT
30 021030  SIGNAL TO NOISE RATIO
31 007007  HEIGHT
32 031021  ASSOCIATED FIELD SIGNIFICANCE
33 999999  ASSOCIATED FIELD
34 011001  WIND DIRECTION
35 011002  WIND SPEED
36 031021  ASSOCIATED FIELD SIGNIFICANCE
37 999999  ASSOCIATED FIELD
38 011006  W-COMPONENT
39 021030  SIGNAL TO NOISE RATIO
40 007007  HEIGHT
41 031021  ASSOCIATED FIELD SIGNIFICANCE
42 999999  ASSOCIATED FIELD
43 011001  WIND DIRECTION
44 011002  WIND SPEED
45 031021  ASSOCIATED FIELD SIGNIFICANCE
46 999999  ASSOCIATED FIELD
47 011006  W-COMPONENT
48 021030  SIGNAL TO NOISE RATIO
49 007007  HEIGHT
50 031021  ASSOCIATED FIELD SIGNIFICANCE
51 999999  ASSOCIATED FIELD
52 011001  WIND DIRECTION
53 011002  WIND SPEED
54 031021  ASSOCIATED FIELD SIGNIFICANCE
55 999999  ASSOCIATED FIELD
56 011006  W-COMPONENT
57 021030  SIGNAL TO NOISE RATIO
58 007007  HEIGHT

```

```
59 031021 ASSOCIATED FIELD SIGNIFICANCE
60 999999 ASSOCIATED FIELD
61 011001 WIND DIRECTION
62 011002 WIND SPEED
63 031021 ASSOCIATED FIELD SIGNIFICANCE
64 999999 ASSOCIATED FIELD
65 011006 W-COMPONENT
66 021030 SIGNAL TO NOISE RATIO
67 007007 HEIGHT
68 031021 ASSOCIATED FIELD SIGNIFICANCE
69 999999 ASSOCIATED FIELD
70 011001 WIND DIRECTION
71 011002 WIND SPEED
72 031021 ASSOCIATED FIELD SIGNIFICANCE
73 999999 ASSOCIATED FIELD
74 011006 W-COMPONENT
75 021030 SIGNAL TO NOISE RATIO
76 007007 HEIGHT
77 031021 ASSOCIATED FIELD SIGNIFICANCE
78 999999 ASSOCIATED FIELD
79 011001 WIND DIRECTION
80 011002 WIND SPEED
81 031021 ASSOCIATED FIELD SIGNIFICANCE
82 999999 ASSOCIATED FIELD
83 011006 W-COMPONENT
84 021030 SIGNAL TO NOISE RATIO
85 007007 HEIGHT
86 031021 ASSOCIATED FIELD SIGNIFICANCE
87 999999 ASSOCIATED FIELD
88 011001 WIND DIRECTION
89 011002 WIND SPEED
90 031021 ASSOCIATED FIELD SIGNIFICANCE
91 999999 ASSOCIATED FIELD
92 011006 W-COMPONENT
93 021030 SIGNAL TO NOISE RATIO
94 007007 HEIGHT
95 031021 ASSOCIATED FIELD SIGNIFICANCE
96 999999 ASSOCIATED FIELD
97 011001 WIND DIRECTION
98 011002 WIND SPEED
99 031021 ASSOCIATED FIELD SIGNIFICANCE
100 999999 ASSOCIATED FIELD
101 011006 W-COMPONENT
102 021030 SIGNAL TO NOISE RATIO
103 007007 HEIGHT
104 031021 ASSOCIATED FIELD SIGNIFICANCE
105 999999 ASSOCIATED FIELD
106 011001 WIND DIRECTION
107 011002 WIND SPEED
108 031021 ASSOCIATED FIELD SIGNIFICANCE
109 999999 ASSOCIATED FIELD
110 011006 W-COMPONENT
111 021030 SIGNAL TO NOISE RATIO
112 007007 HEIGHT
113 031021 ASSOCIATED FIELD SIGNIFICANCE
114 999999 ASSOCIATED FIELD
115 011001 WIND DIRECTION
116 011002 WIND SPEED
117 031021 ASSOCIATED FIELD SIGNIFICANCE
118 999999 ASSOCIATED FIELD
119 011006 W-COMPONENT
120 021030 SIGNAL TO NOISE RATIO
121 007007 HEIGHT
122 031021 ASSOCIATED FIELD SIGNIFICANCE
123 999999 ASSOCIATED FIELD
124 011001 WIND DIRECTION
125 011002 WIND SPEED
126 031021 ASSOCIATED FIELD SIGNIFICANCE
127 999999 ASSOCIATED FIELD
128 011006 W-COMPONENT
129 021030 SIGNAL TO NOISE RATIO
130 007007 HEIGHT
131 031021 ASSOCIATED FIELD SIGNIFICANCE
132 999999 ASSOCIATED FIELD
133 011001 WIND DIRECTION
134 011002 WIND SPEED
135 031021 ASSOCIATED FIELD SIGNIFICANCE
136 999999 ASSOCIATED FIELD
137 011006 W-COMPONENT
138 021030 SIGNAL TO NOISE RATIO
139 007007 HEIGHT
140 031021 ASSOCIATED FIELD SIGNIFICANCE
141 999999 ASSOCIATED FIELD
142 011001 WIND DIRECTION
143 011002 WIND SPEED
144 031021 ASSOCIATED FIELD SIGNIFICANCE
145 999999 ASSOCIATED FIELD
146 011006 W-COMPONENT
147 021030 SIGNAL TO NOISE RATIO
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

1	WMO BLOCK NUMBE	0.1000000000E+02	NUMERIC	
2	WMO STATION NUM	0.3940000000E+03	NUMERIC	
3	TYPE OF STATION	0.2000000000E+01	CODE TABLE	2001
4	YEAR	0.2001000000E+04	YEAR	
5	MONTH	0.2000000000E+01	MONTH	
6	DAY	0.1000000000E+01	DAY	
7	HOUR	0.9000000000E+01	HOUR	
8	MINUTE	0.1400000000E+02	MINUTE	
9	LATITUDE (COARS	0.5221000000E+02	DEGREE	
10	LONGITUDE (COAR	0.1413000000E+02	DEGREE	
11	HEIGHT OF STATI	0.1070000000E+03	M	
12	TYPE OF MEASURI	0.6000000000E+01	CODE TABLE	2003
13	TYPE OF ANTENNA	0.7000000000E+01	CODE TABLE	2101
14	3-dB BEAMWIDTH	0.6000000000E+01	DEGREE	
15	MEAN FREQUENCY	0.1290000000E+10	Hz	
16	RANGE-GATE LENG	0.1050000000E+03	M	
17	MEAN SPEED ESTI	0.0000000000E+00	CODE TABLE	25020
18	WIND COMPUTATIO	0.2000000000E+01	FLAG TABLE	25021
19	TIME SIGNIFICAN	0.2000000000E+01	CODE TABLE	8021
20	TIME PERIOD OR	0.2900000000E+02	MINUTE	
21	DELAYED DESCRIP	0.1400000000E+02	NUMERIC	
22	HEIGHT	0.3310000000E+03	M	
23	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
24	ASSOCIATED FIEL	0.0000000000E+00		
25	WIND DIRECTION	0.2960000000E+03	DEGREE TRUE	
26	WIND SPEED	0.5300000000E+01	M/S	
27	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
28	ASSOCIATED FIEL	0.0000000000E+00		
29	W-COMPONENT	0.1000000000E+00	M/S	
30	SIGNAL TO NOISE	-0.2000000000E+01	dB	
31	HEIGHT	0.4030000000E+03	M	
32	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
33	ASSOCIATED FIEL	0.0000000000E+00		
34	WIND DIRECTION	0.2980000000E+03	DEGREE TRUE	
35	WIND SPEED	0.5300000000E+01	M/S	
36	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
37	ASSOCIATED FIEL	0.0000000000E+00		
38	W-COMPONENT	0.2000000000E+00	M/S	
39	SIGNAL TO NOISE	-0.5000000000E+01	dB	
40	HEIGHT	0.4760000000E+03	M	
41	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
42	ASSOCIATED FIEL	0.0000000000E+00		
43	WIND DIRECTION	0.3020000000E+03	DEGREE TRUE	
44	WIND SPEED	0.5100000000E+01	M/S	
45	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
46	ASSOCIATED FIEL	0.0000000000E+00		
47	W-COMPONENT	0.2000000000E+00	M/S	
48	SIGNAL TO NOISE	-0.1100000000E+02	dB	
49	HEIGHT	0.5480000000E+03	M	
50	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
51	ASSOCIATED FIEL	0.0000000000E+00		
52	WIND DIRECTION	0.3070000000E+03	DEGREE TRUE	
53	WIND SPEED	0.4900000000E+01	M/S	
54	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
55	ASSOCIATED FIEL	0.0000000000E+00		
56	W-COMPONENT	0.2000000000E+00	M/S	
57	SIGNAL TO NOISE	-0.1300000000E+02	dB	
58	HEIGHT	0.6200000000E+03	M	
59	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
60	ASSOCIATED FIEL	0.0000000000E+00		
61	WIND DIRECTION	0.3050000000E+03	DEGREE TRUE	
62	WIND SPEED	0.5400000000E+01	M/S	
63	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
64	ASSOCIATED FIEL	0.0000000000E+00		
65	W-COMPONENT	0.2000000000E+00	M/S	
66	SIGNAL TO NOISE	-0.1200000000E+02	dB	
67	HEIGHT	0.6920000000E+03	M	
68	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
69	ASSOCIATED FIEL	0.0000000000E+00		
70	WIND DIRECTION	0.3090000000E+03	DEGREE TRUE	
71	WIND SPEED	0.5100000000E+01	M/S	
72	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
73	ASSOCIATED FIEL	0.0000000000E+00		
74	W-COMPONENT	0.2000000000E+00	M/S	
75	SIGNAL TO NOISE	-0.1000000000E+02	dB	
76	HEIGHT	0.7650000000E+03	M	
77	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
78	ASSOCIATED FIEL	0.0000000000E+00		
79	WIND DIRECTION	0.3110000000E+03	DEGREE TRUE	
80	WIND SPEED	0.4800000000E+01	M/S	
81	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
82	ASSOCIATED FIEL	0.0000000000E+00		
83	W-COMPONENT	0.4000000000E+00	M/S	
84	SIGNAL TO NOISE	-0.1000000000E+02	dB	
85	HEIGHT	0.8370000000E+03	M	
86	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
87	ASSOCIATED FIEL	0.0000000000E+00		
88	WIND DIRECTION	0.3180000000E+03	DEGREE TRUE	
89	WIND SPEED	0.3900000000E+01	M/S	
90	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021
91	ASSOCIATED FIEL	0.0000000000E+00		
92	W-COMPONENT	0.3000000000E+00	M/S	
93	SIGNAL TO NOISE	-0.9000000000E+01	dB	

94	HEIGHT	0.9090000000E+03	M		
95	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
96	ASSOCIATED FIEL	0.0000000000E+00			
97	WIND DIRECTION	0.3190000000E+03	DEGREE TRUE		
98	WIND SPEED	0.3400000000E+01	M/S		
99	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
100	ASSOCIATED FIEL	0.0000000000E+00			
101	W-COMPONENT	0.2000000000E+00	M/S		
102	SIGNAL TO NOISE	-0.8000000000E+01	dB		
103	HEIGHT	0.9810000000E+03	M		
104	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
105	ASSOCIATED FIEL	0.0000000000E+00			
106	WIND DIRECTION	0.3240000000E+03	DEGREE TRUE		
107	WIND SPEED	0.3100000000E+01	M/S		
108	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
109	ASSOCIATED FIEL	0.0000000000E+00			
110	W-COMPONENT	0.2000000000E+00	M/S		
111	SIGNAL TO NOISE	-0.9000000000E+01	dB		
112	HEIGHT	0.1054000000E+04	M		
113	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
114	ASSOCIATED FIEL	0.0000000000E+00			
115	WIND DIRECTION	0.3290000000E+03	DEGREE TRUE		
116	WIND SPEED	0.2800000000E+01	M/S		
117	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
118	ASSOCIATED FIEL	0.0000000000E+00			
119	W-COMPONENT	0.1000000000E+00	M/S		
120	SIGNAL TO NOISE	-0.1000000000E+02	dB		
121	HEIGHT	0.1126000000E+04	M		
122	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
123	ASSOCIATED FIEL	0.0000000000E+00			
124	WIND DIRECTION	0.3350000000E+03	DEGREE TRUE		
125	WIND SPEED	0.2500000000E+01	M/S		
126	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
127	ASSOCIATED FIEL	0.0000000000E+00			
128	W-COMPONENT	0.1000000000E+00	M/S		
129	SIGNAL TO NOISE	-0.9000000000E+01	dB		
130	HEIGHT	0.1198000000E+04	M		
131	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
132	ASSOCIATED FIEL	0.0000000000E+00			
133	WIND DIRECTION	0.3430000000E+03	DEGREE TRUE		
134	WIND SPEED	0.2100000000E+01	M/S		
135	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
136	ASSOCIATED FIEL	0.0000000000E+00			
137	W-COMPONENT	0.1000000000E+00	M/S		
138	SIGNAL TO NOISE	-0.8000000000E+01	dB		
139	HEIGHT	0.1271000000E+04	M		
140	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
141	ASSOCIATED FIEL	0.0000000000E+00			
142	WIND DIRECTION	0.3250000000E+03	DEGREE TRUE		
143	WIND SPEED	0.2400000000E+01	M/S		
144	ASSOCIATED FIEL	0.1000000000E+01	CODE TABLE	31021	
145	ASSOCIATED FIEL	0.0000000000E+00			
146	W-COMPONENT	0.2000000000E+00	M/S		
147	SIGNAL TO NOISE	-0.9000000000E+01	dB		



## 3.24 Temp land

RDB type 5, subtype 101

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ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601

BUFR SECTION 0

LENGTH OF SECTION 0 (BYTES)      8
TOTAL LENGTH OF BUFR MESSAGE (BYTES) 936
BUFR EDITION NUMBER              3

BUFR SECTION 1

LENGTH OF SECTION 1 (BYTES)      18
BUFR EDITION NUMBER              3
ORIGINATING SUB-CENTRE           0
ORIGINATING CENTRE               98
UPDATE SEQUENCE NUMBER           1
FLAG (PRESENCE OF SECTION 2)     128
BUFR MESSAGE TYPE                2
BUFR MESSAGE SUBTYPE             101
VERSION NUMBER OF LOCAL TABLE   1
YEAR                             1
MONTH                             2
DAY                               1
HOUR                             11
MINUTE                           0
VERSION NUMBER OF MASTER TABLE  6
BUFR MASTER TABLE              0

BUFR SECTION 2

LENGTH OF SECTION 2              52

REPORT DATA BASE KEY

RDB DATA TYPE                    5
RDB DATA SUBTYPE                 101
YEAR                             2001
MONTH                             2
DAY                               1
HOUR                             11
MINUTE                           0
SECOND                           0
LATITUDE 1                        -22.27
LONGITUDE 1                      166.45
IDENTIFIER                       91592
TOTAL BUFR MESSAGE LENGTH        936
DAY (RDB INSERTION)              1
HOUR (RDB INSERTION)             11
MINUTE (RDB INSERTION)           48
SECOND (RDB INSERTION)           51
DAY (MDB ARRIVAL)                1
HOUR (MDB ARRIVAL)              11
MINUTE (MDB ARRIVAL)            44
SECOND (MDB ARRIVAL)             53
CORRECTION NUMBER                0
PART OF MESSAGE                  1
CORRECTION NUMBER                0
PART OF MESSAGE                  1
CORRECTION NUMBER                0
PART OF MESSAGE                  1
CORRECTION NUMBER                0
PART OF MESSAGE                  1
QUALITY CONTROL % CONF           70

BUFR SECTION 3

LENGTH OF SECTION 3 (BYTES)      28
RESERVED                         0
NUMBER OF DATA SUBSETS          1
FLAG (DATA TYPE/DATA COMPRESSION) 128

DATA DESCRIPTORS (UNEXPANDED)

1 309007
2 222000
3 101000

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4 031002  
5 031031  
6 001031  
7 001032  
8 101000  
9 031002  
10 033007

## DATA DESCRIPTORS (EXPANDED)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002011 RADIOSONDE TYPE  
4 002012 RADIOSONDE COMPUTATIONAL METHOD  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 005001 LATITUDE (HIGH ACCURACY)  
11 006001 LONGITUDE (HIGH ACCURACY)  
12 007001 HEIGHT OF STATION  
13 020010 CLOUD COVER (TOTAL)  
14 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)  
15 020011 CLOUD AMOUNT  
16 020013 HEIGHT OF BASE OF CLOUD  
17 020012 CLOUD TYPE  
18 020012 CLOUD TYPE  
19 020012 CLOUD TYPE  
20 031001 DELAYED DESCRIPTOR REPLICATION FACTOR  
21 007004 PRESSURE  
22 008001 VERTICAL SOUNDING SIGNIFICANCE  
23 010003 GEOPOTENTIAL  
24 012001 TEMPERATURE/DRY BULB TEMPERATURE  
25 012003 DEW POINT TEMPERATURE  
26 011001 WIND DIRECTION  
27 011002 WIND SPEED  
28 007004 PRESSURE  
29 008001 VERTICAL SOUNDING SIGNIFICANCE  
30 010003 GEOPOTENTIAL  
31 012001 TEMPERATURE/DRY BULB TEMPERATURE  
32 012003 DEW POINT TEMPERATURE  
33 011001 WIND DIRECTION  
34 011002 WIND SPEED  
35 007004 PRESSURE  
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358 008001 VERTICAL SOUNDING SIGNIFICANCE  
359 010003 GEOPOTENTIAL  
360 012001 TEMPERATURE/DRY BULB TEMPERATURE  
361 012003 DEW POINT TEMPERATURE

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362 011001 WIND DIRECTION
363 011002 WIND SPEED
364 222000 QUALITY INFORMATION FOLLOW
365 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
366 031031 DATA PRESENT INDICATOR
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ECMWF Technical Notes



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729	001031	IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
730	001032	GENERATING APPLICATION
731	031002	EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
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1	WMO BLOCK NUMBE	0.9100000000E+02	NUMERIC	
2	WMO STATION NUM	0.5920000000E+03	NUMERIC	
3	RADIOSONDE TYPE	0.6300000000E+02	CODE TABLE	2011
4	RADIOSONDE COMP	0.4000000000E+01	CODE TABLE	2012
5	YEAR	0.2001000000E+04	YEAR	

6	MONTH	0.2000000000E+01	MONTH	
7	DAY	0.1000000000E+01	DAY	
8	HOUR	0.1100000000E+02	HOUR	
9	MINUTE	0.0000000000E+00	MINUTE	
10	LATITUDE (HIGH	-0.2227000000E+02	DEGREE	
11	LONGITUDE (HIGH	0.1664500000E+03	DEGREE	
12	HEIGHT OF STATI	0.7200000000E+02	M	
13	CLOUD COVER (TO	MISSING	%	
14	VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002
15	CLOUD AMOUNT	0.2000000000E+01	CODE TABLE	20011
16	HEIGHT OF BASE	0.8000000000E+03	M	
17	CLOUD TYPE	0.3800000000E+02	CODE TABLE	20012
18	CLOUD TYPE	0.2300000000E+02	CODE TABLE	20012
19	CLOUD TYPE	0.1200000000E+02	CODE TABLE	20012
20	DELAYED DESCRIP	0.4900000000E+02	NUMERIC	
21	PRESSURE	0.1004000000E+06	PA	
22	VERTICAL SOUNDI	0.7000000000E+02	FLAG TABLE	8001
23	GEOPOTENTIAL	0.7100000000E+03	M**2/S**2	
24	TEMPERATURE/DRY	0.3002000000E+03	K	
25	DEW POINT TEMPE	0.2969000000E+03	K	
26	WIND DIRECTION	0.9000000000E+02	DEGREE TRUE	
27	WIND SPEED	0.4000000000E+01	M/S	
28	PRESSURE	0.1000000000E+06	PA	
29	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
30	GEOPOTENTIAL	0.8800000000E+03	M**2/S**2	
31	TEMPERATURE/DRY	0.3000000000E+03	K	
32	DEW POINT TEMPE	0.2967000000E+03	K	
33	WIND DIRECTION	0.9000000000E+02	DEGREE TRUE	
34	WIND SPEED	0.4000000000E+01	M/S	
35	PRESSURE	0.9250000000E+05	PA	
36	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
37	GEOPOTENTIAL	0.7610000000E+04	M**2/S**2	
38	TEMPERATURE/DRY	0.2954000000E+03	K	
39	DEW POINT TEMPE	0.2931000000E+03	K	
40	WIND DIRECTION	0.7000000000E+02	DEGREE TRUE	
41	WIND SPEED	0.4000000000E+01	M/S	
42	PRESSURE	0.8500000000E+05	PA	
43	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
44	GEOPOTENTIAL	0.1479000000E+05	M**2/S**2	
45	TEMPERATURE/DRY	0.2906000000E+03	K	
46	DEW POINT TEMPE	0.2895000000E+03	K	
47	WIND DIRECTION	0.5000000000E+02	DEGREE TRUE	
48	WIND SPEED	0.4000000000E+01	M/S	
49	PRESSURE	0.7900000000E+05	PA	
50	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
51	GEOPOTENTIAL	0.2108000000E+05	M**2/S**2	
52	TEMPERATURE/DRY	0.2866000000E+03	K	
53	DEW POINT TEMPE	0.2863000000E+03	K	
54	WIND DIRECTION	MISSING	DEGREE TRUE	
55	WIND SPEED	MISSING	M/S	
56	PRESSURE	0.7560000000E+05	PA	
57	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
58	GEOPOTENTIAL	0.2471000000E+05	M**2/S**2	
59	TEMPERATURE/DRY	0.2862000000E+03	K	
60	DEW POINT TEMPE	0.2813000000E+03	K	
61	WIND DIRECTION	MISSING	DEGREE TRUE	
62	WIND SPEED	MISSING	M/S	
63	PRESSURE	0.7440000000E+05	PA	
64	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
65	GEOPOTENTIAL	0.2603000000E+05	M**2/S**2	
66	TEMPERATURE/DRY	0.2854000000E+03	K	
67	DEW POINT TEMPE	0.2784000000E+03	K	
68	WIND DIRECTION	MISSING	DEGREE TRUE	
69	WIND SPEED	MISSING	M/S	
70	PRESSURE	0.7000000000E+05	PA	
71	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
72	GEOPOTENTIAL	0.3085000000E+05	M**2/S**2	
73	TEMPERATURE/DRY	0.2828000000E+03	K	
74	DEW POINT TEMPE	0.2778000000E+03	K	
75	WIND DIRECTION	0.3600000000E+03	DEGREE TRUE	
76	WIND SPEED	0.4000000000E+01	M/S	
77	PRESSURE	0.6980000000E+05	PA	
78	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
79	GEOPOTENTIAL	0.3126000000E+05	M**2/S**2	
80	TEMPERATURE/DRY	0.2828000000E+03	K	
81	DEW POINT TEMPE	0.2778000000E+03	K	
82	WIND DIRECTION	MISSING	DEGREE TRUE	
83	WIND SPEED	MISSING	M/S	
84	PRESSURE	0.6690000000E+05	PA	
85	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
86	GEOPOTENTIAL	0.3470000000E+05	M**2/S**2	
87	TEMPERATURE/DRY	0.2810000000E+03	K	
88	DEW POINT TEMPE	0.2690000000E+03	K	
89	WIND DIRECTION	MISSING	DEGREE TRUE	
90	WIND SPEED	MISSING	M/S	
91	PRESSURE	0.6140000000E+05	PA	
92	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
93	GEOPOTENTIAL	0.4160000000E+05	M**2/S**2	
94	TEMPERATURE/DRY	0.2772000000E+03	K	
95	DEW POINT TEMPE	0.2752000000E+03	K	
96	WIND DIRECTION	MISSING	DEGREE TRUE	
97	WIND SPEED	MISSING	M/S	
98	PRESSURE	0.5970000000E+05	PA	

99	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
100	GEOPOTENTIAL	0.4384000000E+05	M**2/S**2	
101	TEMPERATURE/DRY	0.2760000000E+03	K	
102	DEW POINT TEMPE	0.2650000000E+03	K	
103	WIND DIRECTION		MISSING DEGREE TRUE	
104	WIND SPEED		MISSING M/S	
105	PRESSURE	0.5740000000E+05	PA	
106	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
107	GEOPOTENTIAL	0.4694000000E+05	M**2/S**2	
108	TEMPERATURE/DRY	0.2744000000E+03	K	
109	DEW POINT TEMPE	0.2644000000E+03	K	
110	WIND DIRECTION		MISSING DEGREE TRUE	
111	WIND SPEED		MISSING M/S	
112	PRESSURE	0.5590000000E+05	PA	
113	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
114	GEOPOTENTIAL	0.4903000000E+05	M**2/S**2	
115	TEMPERATURE/DRY	0.2734000000E+03	K	
116	DEW POINT TEMPE	0.2454000000E+03	K	
117	WIND DIRECTION		MISSING DEGREE TRUE	
118	WIND SPEED		MISSING M/S	
119	PRESSURE	0.5470000000E+05	PA	
120	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
121	GEOPOTENTIAL	0.5073000000E+05	M**2/S**2	
122	TEMPERATURE/DRY	0.2723000000E+03	K	
123	DEW POINT TEMPE	0.2593000000E+03	K	
124	WIND DIRECTION		MISSING DEGREE TRUE	
125	WIND SPEED		MISSING M/S	
126	PRESSURE	0.5330000000E+05	PA	
127	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
128	GEOPOTENTIAL	0.5275000000E+05	M**2/S**2	
129	TEMPERATURE/DRY	0.2713000000E+03	K	
130	DEW POINT TEMPE	0.2483000000E+03	K	
131	WIND DIRECTION		MISSING DEGREE TRUE	
132	WIND SPEED		MISSING M/S	
133	PRESSURE	0.5000000000E+05	PA	
134	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
135	GEOPOTENTIAL	0.5757000000E+05	M**2/S**2	
136	TEMPERATURE/DRY	0.2685000000E+03	K	
137	DEW POINT TEMPE	0.2445000000E+03	K	
138	WIND DIRECTION	0.2750000000E+03	DEGREE TRUE	
139	WIND SPEED	0.4000000000E+01	M/S	
140	PRESSURE	0.4960000000E+05	PA	
141	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
142	GEOPOTENTIAL		MISSING M**2/S**2	
143	TEMPERATURE/DRY		MISSING K	
144	DEW POINT TEMPE		MISSING K	
145	WIND DIRECTION	0.2700000000E+03	DEGREE TRUE	
146	WIND SPEED	0.4000000000E+01	M/S	
147	PRESSURE	0.4920000000E+05	PA	
148	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
149	GEOPOTENTIAL	0.5895000000E+05	M**2/S**2	
150	TEMPERATURE/DRY	0.2679000000E+03	K	
151	DEW POINT TEMPE	0.2439000000E+03	K	
152	WIND DIRECTION		MISSING DEGREE TRUE	
153	WIND SPEED		MISSING M/S	
154	PRESSURE	0.4770000000E+05	PA	
155	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
156	GEOPOTENTIAL	0.6132000000E+05	M**2/S**2	
157	TEMPERATURE/DRY	0.2665000000E+03	K	
158	DEW POINT TEMPE	0.2535000000E+03	K	
159	WIND DIRECTION		MISSING DEGREE TRUE	
160	WIND SPEED		MISSING M/S	
161	PRESSURE	0.4600000000E+05	PA	
162	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
163	GEOPOTENTIAL		MISSING M**2/S**2	
164	TEMPERATURE/DRY		MISSING K	
165	DEW POINT TEMPE		MISSING K	
166	WIND DIRECTION	0.3350000000E+03	DEGREE TRUE	
167	WIND SPEED	0.5000000000E+01	M/S	
168	PRESSURE	0.4500000000E+05	PA	
169	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
170	GEOPOTENTIAL	0.6576000000E+05	M**2/S**2	
171	TEMPERATURE/DRY	0.2629000000E+03	K	
172	DEW POINT TEMPE	0.2593000000E+03	K	
173	WIND DIRECTION		MISSING DEGREE TRUE	
174	WIND SPEED		MISSING M/S	
175	PRESSURE	0.4080000000E+05	PA	
176	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
177	GEOPOTENTIAL	0.7307000000E+05	M**2/S**2	
178	TEMPERATURE/DRY	0.2569000000E+03	K	
179	DEW POINT TEMPE	0.2538000000E+03	K	
180	WIND DIRECTION		MISSING DEGREE TRUE	
181	WIND SPEED		MISSING M/S	
182	PRESSURE	0.4000000000E+05	PA	
183	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
184	GEOPOTENTIAL	0.7443000000E+05	M**2/S**2	
185	TEMPERATURE/DRY	0.2561000000E+03	K	
186	DEW POINT TEMPE	0.2520000000E+03	K	
187	WIND DIRECTION	0.3000000000E+03	DEGREE TRUE	
188	WIND SPEED	0.5000000000E+01	M/S	
189	PRESSURE	0.3410000000E+05	PA	
190	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
191	GEOPOTENTIAL	0.8612000000E+05	M**2/S**2	

192	TEMPERATURE/DRY	0.2495000000E+03	K	
193	DEW POINT TEMPE	0.2295000000E+03	K	
194	WIND DIRECTION	MISSING	DEGREE TRUE	
195	WIND SPEED	MISSING	M/S	
196	PRESSURE	0.3000000000E+05	PA	
197	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
198	GEOPOTENTIAL	0.9503000000E+05	M**2/S**2	
199	TEMPERATURE/DRY	0.2415000000E+03	K	
200	DEW POINT TEMPE	0.2265000000E+03	K	
201	WIND DIRECTION	0.2300000000E+03	DEGREE TRUE	
202	WIND SPEED	0.4000000000E+01	M/S	
203	PRESSURE	0.2630000000E+05	PA	
204	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
205	GEOPOTENTIAL	0.1041200000E+06	M**2/S**2	
206	TEMPERATURE/DRY	0.2335000000E+03	K	
207	DEW POINT TEMPE	0.2225000000E+03	K	
208	WIND DIRECTION	MISSING	DEGREE TRUE	
209	WIND SPEED	MISSING	M/S	
210	PRESSURE	0.2500000000E+05	PA	
211	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
212	GEOPOTENTIAL	0.1073800000E+06	M**2/S**2	
213	TEMPERATURE/DRY	0.2307000000E+03	K	
214	DEW POINT TEMPE	MISSING	K	
215	WIND DIRECTION	0.1800000000E+03	DEGREE TRUE	
216	WIND SPEED	0.4000000000E+01	M/S	
217	PRESSURE	0.2300000000E+05	PA	
218	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
219	GEOPOTENTIAL	MISSING	M**2/S**2	
220	TEMPERATURE/DRY	MISSING	K	
221	DEW POINT TEMPE	MISSING	K	
222	WIND DIRECTION	0.1600000000E+03	DEGREE TRUE	
223	WIND SPEED	0.4000000000E+01	M/S	
224	PRESSURE	0.2000000000E+05	PA	
225	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
226	GEOPOTENTIAL	0.1218000000E+06	M**2/S**2	
227	TEMPERATURE/DRY	0.2187000000E+03	K	
228	DEW POINT TEMPE	MISSING	K	
229	WIND DIRECTION	0.2000000000E+03	DEGREE TRUE	
230	WIND SPEED	0.4000000000E+01	M/S	
231	PRESSURE	0.1840000000E+05	PA	
232	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
233	GEOPOTENTIAL	MISSING	M**2/S**2	
234	TEMPERATURE/DRY	MISSING	K	
235	DEW POINT TEMPE	MISSING	K	
236	WIND DIRECTION	0.2200000000E+03	DEGREE TRUE	
237	WIND SPEED	0.4000000000E+01	M/S	
238	PRESSURE	0.1710000000E+05	PA	
239	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
240	GEOPOTENTIAL	0.1315400000E+06	M**2/S**2	
241	TEMPERATURE/DRY	0.2105000000E+03	K	
242	DEW POINT TEMPE	MISSING	K	
243	WIND DIRECTION	MISSING	DEGREE TRUE	
244	WIND SPEED	MISSING	M/S	
245	PRESSURE	0.1500000000E+05	PA	
246	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
247	GEOPOTENTIAL	0.1392500000E+06	M**2/S**2	
248	TEMPERATURE/DRY	0.2069000000E+03	K	
249	DEW POINT TEMPE	MISSING	K	
250	WIND DIRECTION	0.1450000000E+03	DEGREE TRUE	
251	WIND SPEED	0.4000000000E+01	M/S	
252	PRESSURE	0.1370000000E+05	PA	
253	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
254	GEOPOTENTIAL	MISSING	M**2/S**2	
255	TEMPERATURE/DRY	MISSING	K	
256	DEW POINT TEMPE	MISSING	K	
257	WIND DIRECTION	0.1150000000E+03	DEGREE TRUE	
258	WIND SPEED	0.4000000000E+01	M/S	
259	PRESSURE	0.1030000000E+05	PA	
260	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
261	GEOPOTENTIAL	0.1611600000E+06	M**2/S**2	
262	TEMPERATURE/DRY	0.1967000000E+03	K	
263	DEW POINT TEMPE	MISSING	K	
264	WIND DIRECTION	MISSING	DEGREE TRUE	
265	WIND SPEED	MISSING	M/S	
266	PRESSURE	0.1000000000E+05	PA	
267	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
268	GEOPOTENTIAL	0.1626900000E+06	M**2/S**2	
269	TEMPERATURE/DRY	0.1963000000E+03	K	
270	DEW POINT TEMPE	MISSING	K	
271	WIND DIRECTION	0.2200000000E+03	DEGREE TRUE	
272	WIND SPEED	0.5000000000E+01	M/S	
273	PRESSURE	0.9990000000E+04	PA	
274	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
275	GEOPOTENTIAL	MISSING	M**2/S**2	
276	TEMPERATURE/DRY	MISSING	K	
277	DEW POINT TEMPE	MISSING	K	
278	WIND DIRECTION	0.2200000000E+03	DEGREE TRUE	
279	WIND SPEED	0.5000000000E+01	M/S	
280	PRESSURE	0.9400000000E+04	PA	
281	VERTICAL SOUNDI	0.2000000000E+02	FLAG TABLE	8001
282	GEOPOTENTIAL	0.1663000000E+06	M**2/S**2	
283	TEMPERATURE/DRY	0.1955000000E+03	K	
284	DEW POINT TEMPE	MISSING	K	

285	WIND DIRECTION	0.1800000000E+03	DEGREE TRUE	
286	WIND SPEED	0.5000000000E+01	M/S	
287	PRESSURE	0.8070000000E+04	PA	
288	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
289	GEOPOTENTIAL	MISSING	M**2/S**2	
290	TEMPERATURE/DRY	MISSING	K	
291	DEW POINT TEMPE	MISSING	K	
292	WIND DIRECTION	0.7500000000E+02	DEGREE TRUE	
293	WIND SPEED	0.3000000000E+01	M/S	
294	PRESSURE	0.7890000000E+04	PA	
295	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
296	GEOPOTENTIAL	0.1761100000E+06	M**2/S**2	
297	TEMPERATURE/DRY	0.1947000000E+03	K	
298	DEW POINT TEMPE	MISSING	K	
299	WIND DIRECTION	MISSING	DEGREE TRUE	
300	WIND SPEED	MISSING	M/S	
301	PRESSURE	0.7000000000E+04	PA	
302	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
303	GEOPOTENTIAL	0.1828000000E+06	M**2/S**2	
304	TEMPERATURE/DRY	0.1987000000E+03	K	
305	DEW POINT TEMPE	MISSING	K	
306	WIND DIRECTION	0.1350000000E+03	DEGREE TRUE	
307	WIND SPEED	0.8000000000E+01	M/S	
308	PRESSURE	0.6910000000E+04	PA	
309	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
310	GEOPOTENTIAL	MISSING	M**2/S**2	
311	TEMPERATURE/DRY	MISSING	K	
312	DEW POINT TEMPE	MISSING	K	
313	WIND DIRECTION	0.1400000000E+03	DEGREE TRUE	
314	WIND SPEED	0.9000000000E+01	M/S	
315	PRESSURE	0.6410000000E+04	PA	
316	VERTICAL SOUNDI	0.6000000000E+01	FLAG TABLE	8001
317	GEOPOTENTIAL	0.1879200000E+06	M**2/S**2	
318	TEMPERATURE/DRY	0.2017000000E+03	K	
319	DEW POINT TEMPE	MISSING	K	
320	WIND DIRECTION	0.1000000000E+03	DEGREE TRUE	
321	WIND SPEED	0.1300000000E+02	M/S	
322	PRESSURE	0.5680000000E+04	PA	
323	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
324	GEOPOTENTIAL	MISSING	M**2/S**2	
325	TEMPERATURE/DRY	MISSING	K	
326	DEW POINT TEMPE	MISSING	K	
327	WIND DIRECTION	0.9000000000E+02	DEGREE TRUE	
328	WIND SPEED	0.1200000000E+02	M/S	
329	PRESSURE	0.5460000000E+04	PA	
330	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
331	GEOPOTENTIAL	MISSING	M**2/S**2	
332	TEMPERATURE/DRY	MISSING	K	
333	DEW POINT TEMPE	MISSING	K	
334	WIND DIRECTION	0.1150000000E+03	DEGREE TRUE	
335	WIND SPEED	0.1400000000E+02	M/S	
336	PRESSURE	0.5000000000E+04	PA	
337	VERTICAL SOUNDI	0.3200000000E+02	FLAG TABLE	8001
338	GEOPOTENTIAL	0.2023100000E+06	M**2/S**2	
339	TEMPERATURE/DRY	0.2057000000E+03	K	
340	DEW POINT TEMPE	MISSING	K	
341	WIND DIRECTION	0.1000000000E+03	DEGREE TRUE	
342	WIND SPEED	0.1500000000E+02	M/S	
343	PRESSURE	0.4190000000E+04	PA	
344	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
345	GEOPOTENTIAL	MISSING	M**2/S**2	
346	TEMPERATURE/DRY	MISSING	K	
347	DEW POINT TEMPE	MISSING	K	
348	WIND DIRECTION	0.7500000000E+02	DEGREE TRUE	
349	WIND SPEED	0.1800000000E+02	M/S	
350	PRESSURE	0.3570000000E+04	PA	
351	VERTICAL SOUNDI	0.2000000000E+01	FLAG TABLE	8001
352	GEOPOTENTIAL	MISSING	M**2/S**2	
353	TEMPERATURE/DRY	MISSING	K	
354	DEW POINT TEMPE	MISSING	K	
355	WIND DIRECTION	0.9500000000E+02	DEGREE TRUE	
356	WIND SPEED	0.1800000000E+02	M/S	
357	PRESSURE	0.3440000000E+04	PA	
358	VERTICAL SOUNDI	0.4000000000E+01	FLAG TABLE	8001
359	GEOPOTENTIAL	0.2248500000E+06	M**2/S**2	
360	TEMPERATURE/DRY	0.2119000000E+03	K	
361	DEW POINT TEMPE	MISSING	K	
362	WIND DIRECTION	MISSING	DEGREE TRUE	
363	WIND SPEED	MISSING	M/S	
364	QUALITY INFORMA	0.0000000000E+00		
365	EXTENDED DELAYE	0.3630000000E+03	NUMERIC	
366	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
367	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
368	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
369	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
370	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
371	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
372	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
373	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
374	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
375	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
376	DATA PRESENT IN	0.0000000000E+00	NUMERIC	
377	DATA PRESENT IN	0.0000000000E+00	NUMERIC	



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ECMWF Technical Notes

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657 DATA PRESENT IN      0.0000000000E+00 NUMERIC
658 DATA PRESENT IN      0.0000000000E+00 NUMERIC
659 DATA PRESENT IN      0.0000000000E+00 NUMERIC
660 DATA PRESENT IN      0.0000000000E+00 NUMERIC
661 DATA PRESENT IN      0.0000000000E+00 NUMERIC
662 DATA PRESENT IN      0.0000000000E+00 NUMERIC
663 DATA PRESENT IN      MISSING NUMERIC
664 DATA PRESENT IN      MISSING NUMERIC
665 DATA PRESENT IN      MISSING NUMERIC
666 DATA PRESENT IN      0.0000000000E+00 NUMERIC
667 DATA PRESENT IN      0.0000000000E+00 NUMERIC
668 DATA PRESENT IN      0.0000000000E+00 NUMERIC
669 DATA PRESENT IN      0.0000000000E+00 NUMERIC
670 DATA PRESENT IN      MISSING NUMERIC
671 DATA PRESENT IN      0.0000000000E+00 NUMERIC
672 DATA PRESENT IN      0.0000000000E+00 NUMERIC
673 DATA PRESENT IN      0.0000000000E+00 NUMERIC
674 DATA PRESENT IN      0.0000000000E+00 NUMERIC
675 DATA PRESENT IN      MISSING NUMERIC
676 DATA PRESENT IN      MISSING NUMERIC
677 DATA PRESENT IN      MISSING NUMERIC
678 DATA PRESENT IN      0.0000000000E+00 NUMERIC
679 DATA PRESENT IN      0.0000000000E+00 NUMERIC
680 DATA PRESENT IN      0.0000000000E+00 NUMERIC
681 DATA PRESENT IN      0.0000000000E+00 NUMERIC
682 DATA PRESENT IN      0.0000000000E+00 NUMERIC
683 DATA PRESENT IN      0.0000000000E+00 NUMERIC
684 DATA PRESENT IN      MISSING NUMERIC
685 DATA PRESENT IN      0.0000000000E+00 NUMERIC
686 DATA PRESENT IN      0.0000000000E+00 NUMERIC
687 DATA PRESENT IN      0.0000000000E+00 NUMERIC
688 DATA PRESENT IN      0.0000000000E+00 NUMERIC
689 DATA PRESENT IN      MISSING NUMERIC
690 DATA PRESENT IN      MISSING NUMERIC
691 DATA PRESENT IN      MISSING NUMERIC
692 DATA PRESENT IN      0.0000000000E+00 NUMERIC
693 DATA PRESENT IN      0.0000000000E+00 NUMERIC
694 DATA PRESENT IN      0.0000000000E+00 NUMERIC
695 DATA PRESENT IN      0.0000000000E+00 NUMERIC
696 DATA PRESENT IN      MISSING NUMERIC
697 DATA PRESENT IN      MISSING NUMERIC
698 DATA PRESENT IN      MISSING NUMERIC
699 DATA PRESENT IN      0.0000000000E+00 NUMERIC
700 DATA PRESENT IN      0.0000000000E+00 NUMERIC
701 DATA PRESENT IN      0.0000000000E+00 NUMERIC
702 DATA PRESENT IN      0.0000000000E+00 NUMERIC
703 DATA PRESENT IN      0.0000000000E+00 NUMERIC
704 DATA PRESENT IN      0.0000000000E+00 NUMERIC
705 DATA PRESENT IN      MISSING NUMERIC
706 DATA PRESENT IN      0.0000000000E+00 NUMERIC
707 DATA PRESENT IN      0.0000000000E+00 NUMERIC
708 DATA PRESENT IN      0.0000000000E+00 NUMERIC
709 DATA PRESENT IN      0.0000000000E+00 NUMERIC
710 DATA PRESENT IN      MISSING NUMERIC
711 DATA PRESENT IN      MISSING NUMERIC
712 DATA PRESENT IN      MISSING NUMERIC
713 DATA PRESENT IN      0.0000000000E+00 NUMERIC
714 DATA PRESENT IN      0.0000000000E+00 NUMERIC
715 DATA PRESENT IN      0.0000000000E+00 NUMERIC
716 DATA PRESENT IN      0.0000000000E+00 NUMERIC
717 DATA PRESENT IN      MISSING NUMERIC
718 DATA PRESENT IN      MISSING NUMERIC
719 DATA PRESENT IN      MISSING NUMERIC
720 DATA PRESENT IN      0.0000000000E+00 NUMERIC
721 DATA PRESENT IN      0.0000000000E+00 NUMERIC
722 DATA PRESENT IN      0.0000000000E+00 NUMERIC
723 DATA PRESENT IN      0.0000000000E+00 NUMERIC
724 DATA PRESENT IN      0.0000000000E+00 NUMERIC
725 DATA PRESENT IN      0.0000000000E+00 NUMERIC
726 DATA PRESENT IN      MISSING NUMERIC
727 DATA PRESENT IN      MISSING NUMERIC
728 DATA PRESENT IN      MISSING NUMERIC
729 IDENTIFICATION      0.9800000000E+02 CODE TABLE 1031
730 GENERATING APPL      0.1000000000E+01 CODE TABLE 1032
731 EXTENDED DELAYE      0.2720000000E+03 NUMERIC
732 % CONFIDENCE      0.7000000000E+02 NUMERIC
733 % CONFIDENCE      0.7000000000E+02 NUMERIC
734 % CONFIDENCE      0.7000000000E+02 NUMERIC
735 % CONFIDENCE      0.7000000000E+02 NUMERIC
736 % CONFIDENCE      0.7000000000E+02 NUMERIC
737 % CONFIDENCE      0.7000000000E+02 NUMERIC
738 % CONFIDENCE      0.7000000000E+02 NUMERIC
739 % CONFIDENCE      0.7000000000E+02 NUMERIC
740 % CONFIDENCE      0.7000000000E+02 NUMERIC
741 % CONFIDENCE      0.7000000000E+02 NUMERIC
742 % CONFIDENCE      0.7000000000E+02 NUMERIC
743 % CONFIDENCE      0.7000000000E+02 NUMERIC
744 % CONFIDENCE      0.7000000000E+02 NUMERIC
745 % CONFIDENCE      0.7000000000E+02 NUMERIC
746 % CONFIDENCE      0.7000000000E+02 NUMERIC
747 % CONFIDENCE      0.7000000000E+02 NUMERIC
748 % CONFIDENCE      0.7000000000E+02 NUMERIC
749 % CONFIDENCE      0.7000000000E+02 NUMERIC
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[illegible]

936	%	CONFIDENCE	0.7000000000E+02	NUMERIC
937	%	CONFIDENCE	0.7000000000E+02	NUMERIC
938	%	CONFIDENCE	0.8200000000E+02	NUMERIC
939	%	CONFIDENCE	0.7000000000E+02	NUMERIC
940	%	CONFIDENCE	0.7400000000E+02	NUMERIC
941	%	CONFIDENCE	0.7000000000E+02	NUMERIC
942	%	CONFIDENCE	0.7000000000E+02	NUMERIC
943	%	CONFIDENCE	0.7000000000E+02	NUMERIC
944	%	CONFIDENCE	0.7500000000E+02	NUMERIC
945	%	CONFIDENCE	0.7000000000E+02	NUMERIC
946	%	CONFIDENCE	0.7000000000E+02	NUMERIC
947	%	CONFIDENCE	0.7000000000E+02	NUMERIC
948	%	CONFIDENCE	0.7900000000E+02	NUMERIC
949	%	CONFIDENCE	0.7000000000E+02	NUMERIC
950	%	CONFIDENCE	0.7000000000E+02	NUMERIC
951	%	CONFIDENCE	0.7000000000E+02	NUMERIC
952	%	CONFIDENCE	0.7000000000E+02	NUMERIC
953	%	CONFIDENCE	0.7000000000E+02	NUMERIC
954	%	CONFIDENCE	0.7500000000E+02	NUMERIC
955	%	CONFIDENCE	0.7000000000E+02	NUMERIC
956	%	CONFIDENCE	0.7000000000E+02	NUMERIC
957	%	CONFIDENCE	0.7000000000E+02	NUMERIC
958	%	CONFIDENCE	0.7500000000E+02	NUMERIC
959	%	CONFIDENCE	0.7000000000E+02	NUMERIC
960	%	CONFIDENCE	0.7000000000E+02	NUMERIC
961	%	CONFIDENCE	0.7000000000E+02	NUMERIC
962	%	CONFIDENCE	0.8200000000E+02	NUMERIC
963	%	CONFIDENCE	0.7000000000E+02	NUMERIC
964	%	CONFIDENCE	0.7400000000E+02	NUMERIC
965	%	CONFIDENCE	0.7000000000E+02	NUMERIC
966	%	CONFIDENCE	0.7000000000E+02	NUMERIC
967	%	CONFIDENCE	0.7000000000E+02	NUMERIC
968	%	CONFIDENCE	0.7500000000E+02	NUMERIC
969	%	CONFIDENCE	0.7000000000E+02	NUMERIC
970	%	CONFIDENCE	0.7000000000E+02	NUMERIC
971	%	CONFIDENCE	0.7000000000E+02	NUMERIC
972	%	CONFIDENCE	0.7900000000E+02	NUMERIC
973	%	CONFIDENCE	0.7000000000E+02	NUMERIC
974	%	CONFIDENCE	0.7000000000E+02	NUMERIC
975	%	CONFIDENCE	0.7000000000E+02	NUMERIC
976	%	CONFIDENCE	0.7000000000E+02	NUMERIC
977	%	CONFIDENCE	0.7000000000E+02	NUMERIC
978	%	CONFIDENCE	0.7500000000E+02	NUMERIC
979	%	CONFIDENCE	0.7000000000E+02	NUMERIC
980	%	CONFIDENCE	0.7000000000E+02	NUMERIC
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982	%	CONFIDENCE	0.7500000000E+02	NUMERIC
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984	%	CONFIDENCE	0.7000000000E+02	NUMERIC
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986	%	CONFIDENCE	0.8200000000E+02	NUMERIC
987	%	CONFIDENCE	0.7000000000E+02	NUMERIC
988	%	CONFIDENCE	0.7400000000E+02	NUMERIC
989	%	CONFIDENCE	0.7000000000E+02	NUMERIC
990	%	CONFIDENCE	0.7000000000E+02	NUMERIC
991	%	CONFIDENCE	0.7000000000E+02	NUMERIC
992	%	CONFIDENCE	0.7500000000E+02	NUMERIC
993	%	CONFIDENCE	0.7000000000E+02	NUMERIC
994	%	CONFIDENCE	0.7000000000E+02	NUMERIC
995	%	CONFIDENCE	0.7000000000E+02	NUMERIC
996	%	CONFIDENCE	0.7500000000E+02	NUMERIC
997	%	CONFIDENCE	0.7000000000E+02	NUMERIC
998	%	CONFIDENCE	0.7000000000E+02	NUMERIC
999	%	CONFIDENCE	0.7000000000E+02	NUMERIC
1000	%	CONFIDENCE	0.7500000000E+02	NUMERIC
1001	%	CONFIDENCE	0.7000000000E+02	NUMERIC
1002	%	CONFIDENCE	0.7000000000E+02	NUMERIC
1003	%	CONFIDENCE	0.7000000000E+02	NUMERIC

### 3.25 Temp ship

RDB type 5, subtype 102

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 198
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 2
    BUFR MESSAGE SUBTYPE              102
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   5
    RDB DATA SUBTYPE                102
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             10
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       -62.80
    LONGITUDE 1                      -57.00
    IDENTIFIER                       DBLK
    TOTAL BUFR MESSAGE LENGTH        198
    DAY (RDB INSERTION)               1
    HOUR (RDB INSERTION)              12
    MINUTE (RDB INSERTION)            44
    SECOND (RDB INSERTION)            49
    DAY (MDB ARRIVAL)                 1
    HOUR (MDB ARRIVAL)                12
    MINUTE (MDB ARRIVAL)              40
    SECOND (MDB ARRIVAL)              25
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      28
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 309196
    2 222000
    3 101000
```



4 031002  
5 031031  
6 001031  
7 001032  
8 101000  
9 031002  
10 033007

## DATA DESCRIPTORS (EXPANDED)

```

1 001011 SHIP OR MOBILE LAND STATION IDENTIFIER
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM
3 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM
4 002011 RADIOSONDE TYPE
5 002012 RADIOSONDE COMPUTATIONAL METHOD
6 004001 YEAR
7 004002 MONTH
8 004003 DAY
9 004004 HOUR
10 004005 MINUTE
11 005002 LATITUDE (COARSE ACCURACY)
12 006002 LONGITUDE (COARSE ACCURACY)
13 007001 HEIGHT OF STATION
14 020010 CLOUD COVER (TOTAL)
15 008002 VERTICAL SIGNIFICANCE (SURFACE OBSERVATIONS)
16 020011 CLOUD AMOUNT
17 020013 HEIGHT OF BASE OF CLOUD
18 020012 CLOUD TYPE
19 020012 CLOUD TYPE
20 020012 CLOUD TYPE
21 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
22 007004 PRESSURE
23 008001 VERTICAL SOUNDING SIGNIFICANCE
24 010003 GEOPOTENTIAL
25 012001 TEMPERATURE/DRY BULB TEMPERATURE
26 012003 DEW POINT TEMPERATURE
27 011001 WIND DIRECTION
28 011002 WIND SPEED
29 222000 QUALITY INFORMATION FOLLOW
30 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
31 031031 DATA PRESENT INDICATOR
32 031031 DATA PRESENT INDICATOR
33 031031 DATA PRESENT INDICATOR
34 031031 DATA PRESENT INDICATOR
35 031031 DATA PRESENT INDICATOR
36 031031 DATA PRESENT INDICATOR
37 031031 DATA PRESENT INDICATOR
38 031031 DATA PRESENT INDICATOR
39 031031 DATA PRESENT INDICATOR
40 031031 DATA PRESENT INDICATOR
41 031031 DATA PRESENT INDICATOR
42 031031 DATA PRESENT INDICATOR
43 031031 DATA PRESENT INDICATOR
44 031031 DATA PRESENT INDICATOR
45 031031 DATA PRESENT INDICATOR
46 031031 DATA PRESENT INDICATOR
47 031031 DATA PRESENT INDICATOR
48 031031 DATA PRESENT INDICATOR
49 031031 DATA PRESENT INDICATOR
50 031031 DATA PRESENT INDICATOR
51 031031 DATA PRESENT INDICATOR
52 031031 DATA PRESENT INDICATOR
53 031031 DATA PRESENT INDICATOR
54 031031 DATA PRESENT INDICATOR
55 031031 DATA PRESENT INDICATOR
56 031031 DATA PRESENT INDICATOR
57 031031 DATA PRESENT INDICATOR
58 031031 DATA PRESENT INDICATOR
59 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
60 001032 GENERATING APPLICATION
61 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
62 033007 % CONFIDENCE
63 033007 % CONFIDENCE
64 033007 % CONFIDENCE
65 033007 % CONFIDENCE
66 033007 % CONFIDENCE
67 033007 % CONFIDENCE
68 033007 % CONFIDENCE
69 033007 % CONFIDENCE
70 033007 % CONFIDENCE
71 033007 % CONFIDENCE
72 033007 % CONFIDENCE
73 033007 % CONFIDENCE
74 033007 % CONFIDENCE
75 033007 % CONFIDENCE
76 033007 % CONFIDENCE

STARTING SUBSET TO BE PRINTED : ENDING SUBSET TO BE PRINTED :
1 SHIP OR MOBILE 0.1009000000E+04 CCITTIA5 DBLK
2 DIRECTION OF MO MISSING DEGREE TRUE
3 SPEED OF MOTION MISSING M/S
4 RADIOSONDE TYPE MISSING CODE TABLE 2011
5 RADIOSONDE COMP MISSING CODE TABLE 2012

```

6 YEAR	0.2001000000E+04	YEAR	
7 MONTH	0.2000000000E+01	MONTH	
8 DAY	0.1000000000E+01	DAY	
9 HOUR	0.1000000000E+02	HOUR	
10 MINUTE	0.0000000000E+00	MINUTE	
11 LATITUDE (COARS	-0.6280000000E+02	DEGREE	
12 LONGITUDE (COAR	-0.5700000000E+02	DEGREE	
13 HEIGHT OF STATI	0.8000000000E+01	M	
14 CLOUD COVER (TO	MISSING	%	
15 VERTICAL SIGNIF	0.1000000000E+01	CODE TABLE	8002
16 CLOUD AMOUNT	MISSING	CODE TABLE	20011
17 HEIGHT OF BASE	MISSING	M	
18 CLOUD TYPE	MISSING	CODE TABLE	20012
19 CLOUD TYPE	MISSING	CODE TABLE	20012
20 CLOUD TYPE	MISSING	CODE TABLE	20012
21 DELAYED DESCRIP	0.1000000000E+01	NUMERIC	
22 PRESSURE	0.9860000000E+05	PA	
23 VERTICAL SOUNDI	0.6800000000E+02	FLAG TABLE	8001
24 GEOPOTENTIAL	MISSING	M*2/S*2	
25 TEMPERATURE/DRY	0.2709000000E+03	K	
26 DEW POINT TEMPE	0.2693000000E+03	K	
27 WIND DIRECTION	MISSING	DEGREE TRUE	
28 WIND SPEED	MISSING	M/S	
29 QUALITY INFORMA	0.0000000000E+00		
30 EXTENDED DELAYE	0.2800000000E+02	NUMERIC	
31 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
32 DATA PRESENT IN	MISSING	NUMERIC	
33 DATA PRESENT IN	MISSING	NUMERIC	
34 DATA PRESENT IN	MISSING	NUMERIC	
35 DATA PRESENT IN	MISSING	NUMERIC	
36 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
37 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
38 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
39 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
40 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
41 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
42 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
43 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
44 DATA PRESENT IN	MISSING	NUMERIC	
45 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
46 DATA PRESENT IN	MISSING	NUMERIC	
47 DATA PRESENT IN	MISSING	NUMERIC	
48 DATA PRESENT IN	MISSING	NUMERIC	
49 DATA PRESENT IN	MISSING	NUMERIC	
50 DATA PRESENT IN	MISSING	NUMERIC	
51 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
52 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
53 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
54 DATA PRESENT IN	MISSING	NUMERIC	
55 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
56 DATA PRESENT IN	0.0000000000E+00	NUMERIC	
57 DATA PRESENT IN	MISSING	NUMERIC	
58 DATA PRESENT IN	MISSING	NUMERIC	
59 IDENTIFICATION	0.9800000000E+02	CODE TABLE	1031
60 GENERATING APPL	0.1000000000E+01	CODE TABLE	1032
61 EXTENDED DELAYE	0.1500000000E+02	NUMERIC	
62 % CONFIDENCE	0.7000000000E+02	NUMERIC	
63 % CONFIDENCE	0.7000000000E+02	NUMERIC	
64 % CONFIDENCE	0.7000000000E+02	NUMERIC	
65 % CONFIDENCE	0.7000000000E+02	NUMERIC	
66 % CONFIDENCE	0.7000000000E+02	NUMERIC	
67 % CONFIDENCE	0.7000000000E+02	NUMERIC	
68 % CONFIDENCE	0.7000000000E+02	NUMERIC	
69 % CONFIDENCE	0.7000000000E+02	NUMERIC	
70 % CONFIDENCE	0.7000000000E+02	NUMERIC	
71 % CONFIDENCE	0.7000000000E+02	NUMERIC	
72 % CONFIDENCE	0.7000000000E+02	NUMERIC	
73 % CONFIDENCE	0.7000000000E+02	NUMERIC	
74 % CONFIDENCE	0.7000000000E+02	NUMERIC	
75 % CONFIDENCE	0.7000000000E+02	NUMERIC	
76 % CONFIDENCE	0.7000000000E+02	NUMERIC	

## 3.26 AIREP data

RDB type 7, subtype 142

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 162
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 4
    BUFR MESSAGE SUBTYPE              142
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             9
    MINUTE                           1
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   7
    RDB DATA SUBTYPE                142
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             9
    MINUTE                           1
    SECOND                           54
    LATITUDE 1                       23.50
    LONGITUDE 1                      -65.80
    IDENTIFIER                       KLM742
    TOTAL BUFR MESSAGE LENGTH        162
    DAY (RDB INSERTION)              1
    HOUR (RDB INSERTION)             9
    MINUTE (RDB INSERTION)           24
    SECOND (RDB INSERTION)           9
    DAY (MDB ARRIVAL)                1
    HOUR (MDB ARRIVAL)              9
    MINUTE (MDB ARRIVAL)             20
    SECOND (MDB ARRIVAL)             15
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      24
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 311001
    2 222000
    3 101018

```

4 031031  
5 001031  
6 001032  
7 101018  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001006 AIRCRAFT FLIGHT NUMBER  
2 002061 AIRCRAFT NAVIGATIONAL SYSTEM  
3 004001 YEAR  
4 004002 MONTH  
5 004003 DAY  
6 004004 HOUR  
7 004005 MINUTE  
8 005001 LATITUDE (HIGH ACCURACY)  
9 006001 LONGITUDE (HIGH ACCURACY)  
10 008004 PHASE OF AIRCRAFT FLIGHT  
11 007002 HEIGHT OR ALTITUDE  
12 012001 TEMPERATURE/DRY BULB TEMPERATURE  
13 011001 WIND DIRECTION  
14 011002 WIND SPEED  
15 011031 DEGREE OF TURBULENCE  
16 011032 HEIGHT OF BASE OF TURBULENCE  
17 011033 HEIGHT OF TOP OF TURBULENCE  
18 020041 AIRFRAME ICING  
19 222000 QUALITY INFORMATION FOLLOW  
20 031031 DATA PRESENT INDICATOR  
21 031031 DATA PRESENT INDICATOR  
22 031031 DATA PRESENT INDICATOR  
23 031031 DATA PRESENT INDICATOR  
24 031031 DATA PRESENT INDICATOR  
25 031031 DATA PRESENT INDICATOR  
26 031031 DATA PRESENT INDICATOR  
27 031031 DATA PRESENT INDICATOR  
28 031031 DATA PRESENT INDICATOR  
29 031031 DATA PRESENT INDICATOR  
30 031031 DATA PRESENT INDICATOR  
31 031031 DATA PRESENT INDICATOR  
32 031031 DATA PRESENT INDICATOR  
33 031031 DATA PRESENT INDICATOR  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
39 001032 GENERATING APPLICATION  
40 033007 % CONFIDENCE  
41 033007 % CONFIDENCE  
42 033007 % CONFIDENCE  
43 033007 % CONFIDENCE  
44 033007 % CONFIDENCE  
45 033007 % CONFIDENCE  
46 033007 % CONFIDENCE  
47 033007 % CONFIDENCE  
48 033007 % CONFIDENCE  
49 033007 % CONFIDENCE  
50 033007 % CONFIDENCE  
51 033007 % CONFIDENCE  
52 033007 % CONFIDENCE  
53 033007 % CONFIDENCE  
54 033007 % CONFIDENCE  
55 033007 % CONFIDENCE  
56 033007 % CONFIDENCE  
57 033007 % CONFIDENCE

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

1	AIRCRAFT FLIGHT	0.1008000000E+04	CCITTIA5		KLM742
2	AIRCRAFT NAVIGA		MISSING CODE TABLE	2061	
3	YEAR	0.2001000000E+04	YEAR		
4	MONTH	0.2000000000E+01	MONTH		
5	DAY	0.1000000000E+01	DAY		
6	HOUR	0.9000000000E+01	HOUR		
7	MINUTE	0.1000000000E+01	MINUTE		
8	LATITUDE (HIGH	0.2350000000E+02	DEGREE		
9	LONGITUDE (HIGH	-0.6580001000E+02	DEGREE		
10	PHASE OF AIRCRA		MISSING CODE TABLE	8004	
11	HEIGHT OR ALTIT	0.1006000000E+05	M		
12	TEMPERATURE/DRY	0.2292000000E+03	K		
13	WIND DIRECTION	0.3300000000E+03	DEGREE TRUE		
14	WIND SPEED	0.2100000000E+02	M/S		
15	DEGREE OF TURBU		MISSING CODE TABLE	11031	
16	HEIGHT OF BASE		MISSING M		
17	HEIGHT OF TOP O		MISSING M		
18	AIRFRAME ICING		MISSING CODE TABLE	20041	
19	QUALITY INFORMA	0.0000000000E+00			
20	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
21	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
22	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
23	DATA PRESENT IN	0.0000000000E+00	NUMERIC		

```
24 DATA PRESENT IN      0.0000000000E+00 NUMERIC
25 DATA PRESENT IN      0.0000000000E+00 NUMERIC
26 DATA PRESENT IN      0.0000000000E+00 NUMERIC
27 DATA PRESENT IN      0.0000000000E+00 NUMERIC
28 DATA PRESENT IN      0.0000000000E+00 NUMERIC
29 DATA PRESENT IN      0.0000000000E+00 NUMERIC
30 DATA PRESENT IN      0.0000000000E+00 NUMERIC
31 DATA PRESENT IN      0.0000000000E+00 NUMERIC
32 DATA PRESENT IN      0.0000000000E+00 NUMERIC
33 DATA PRESENT IN      0.0000000000E+00 NUMERIC
34 DATA PRESENT IN      0.0000000000E+00 NUMERIC
35 DATA PRESENT IN      0.0000000000E+00 NUMERIC
36 DATA PRESENT IN      0.0000000000E+00 NUMERIC
37 DATA PRESENT IN      0.0000000000E+00 NUMERIC
38 IDENTIFICATION        0.9800000000E+02 CODE TABLE 1031
39 GENERATING APPL      0.1000000000E+01 CODE TABLE 1032
40 % CONFIDENCE          0.7000000000E+02 NUMERIC
41 % CONFIDENCE          0.7000000000E+02 NUMERIC
42 % CONFIDENCE          0.7000000000E+02 NUMERIC
43 % CONFIDENCE          0.7000000000E+02 NUMERIC
44 % CONFIDENCE          0.7000000000E+02 NUMERIC
45 % CONFIDENCE          0.7000000000E+02 NUMERIC
46 % CONFIDENCE          0.7000000000E+02 NUMERIC
47 % CONFIDENCE          0.7000000000E+02 NUMERIC
48 % CONFIDENCE          0.7000000000E+02 NUMERIC
49 % CONFIDENCE          0.7000000000E+02 NUMERIC
50 % CONFIDENCE          0.7900000000E+02 NUMERIC
51 % CONFIDENCE          0.7000000000E+02 NUMERIC
52 % CONFIDENCE          0.7000000000E+02 NUMERIC
53 % CONFIDENCE          0.7000000000E+02 NUMERIC
54 % CONFIDENCE          0.7000000000E+02 NUMERIC
55 % CONFIDENCE          0.7000000000E+02 NUMERIC
56 % CONFIDENCE          0.7000000000E+02 NUMERIC
57 % CONFIDENCE          0.7000000000E+02 NUMERIC
```

## 3.27 AMDAR data

RDB type 7, subtype 144

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 162
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 4
    BUFR MESSAGE SUBTYPE              144
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                              1
    MONTH                             2
    DAY                               1
    HOUR                              9
    MINUTE                            3
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   7
    RDB DATA SUBTYPE                 144
    YEAR                             2001
    MONTH                             2
    DAY                               1
    HOUR                              9
    MINUTE                            3
    SECOND                            43
    LATITUDE 1                        63.43
    LONGITUDE 1                       20.13
    IDENTIFIER                        EU5612
    TOTAL BUFR MESSAGE LENGTH         162
    DAY (RDB INSERTION)                1
    HOUR (RDB INSERTION)                9
    MINUTE (RDB INSERTION)             14
    SECOND (RDB INSERTION)              0
    DAY (MDB ARRIVAL)                  1
    HOUR (MDB ARRIVAL)                  9
    MINUTE (MDB ARRIVAL)                8
    SECOND (MDB ARRIVAL)                56
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      24
    RESERVED                          0
    NUMBER OF DATA SUBSETS            1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 311001
    2 222000
    3 101018
```

4 031031  
5 001031  
6 001032  
7 101018  
8 033007

## DATA DESCRIPTORS (EXPANDED)

1 001006 AIRCRAFT FLIGHT NUMBER  
2 002061 AIRCRAFT NAVIGATIONAL SYSTEM  
3 004001 YEAR  
4 004002 MONTH  
5 004003 DAY  
6 004004 HOUR  
7 004005 MINUTE  
8 005001 LATITUDE (HIGH ACCURACY)  
9 006001 LONGITUDE (HIGH ACCURACY)  
10 008004 PHASE OF AIRCRAFT FLIGHT  
11 007002 HEIGHT OR ALTITUDE  
12 012001 TEMPERATURE/DRY BULB TEMPERATURE  
13 011001 WIND DIRECTION  
14 011002 WIND SPEED  
15 011031 DEGREE OF TURBULENCE  
16 011032 HEIGHT OF BASE OF TURBULENCE  
17 011033 HEIGHT OF TOP OF TURBULENCE  
18 020041 AIRFRAME ICING  
19 222000 QUALITY INFORMATION FOLLOW  
20 031031 DATA PRESENT INDICATOR  
21 031031 DATA PRESENT INDICATOR  
22 031031 DATA PRESENT INDICATOR  
23 031031 DATA PRESENT INDICATOR  
24 031031 DATA PRESENT INDICATOR  
25 031031 DATA PRESENT INDICATOR  
26 031031 DATA PRESENT INDICATOR  
27 031031 DATA PRESENT INDICATOR  
28 031031 DATA PRESENT INDICATOR  
29 031031 DATA PRESENT INDICATOR  
30 031031 DATA PRESENT INDICATOR  
31 031031 DATA PRESENT INDICATOR  
32 031031 DATA PRESENT INDICATOR  
33 031031 DATA PRESENT INDICATOR  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
39 001032 GENERATING APPLICATION  
40 033007 % CONFIDENCE  
41 033007 % CONFIDENCE  
42 033007 % CONFIDENCE  
43 033007 % CONFIDENCE  
44 033007 % CONFIDENCE  
45 033007 % CONFIDENCE  
46 033007 % CONFIDENCE  
47 033007 % CONFIDENCE  
48 033007 % CONFIDENCE  
49 033007 % CONFIDENCE  
50 033007 % CONFIDENCE  
51 033007 % CONFIDENCE  
52 033007 % CONFIDENCE  
53 033007 % CONFIDENCE  
54 033007 % CONFIDENCE  
55 033007 % CONFIDENCE  
56 033007 % CONFIDENCE  
57 033007 % CONFIDENCE

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

1	AIRCRAFT FLIGHT	0.1008000000E+04	CCITTIA5		EU5612
2	AIRCRAFT NAVIGA		MISSING CODE TABLE	2061	
3	YEAR	0.2001000000E+04	YEAR		
4	MONTH	0.2000000000E+01	MONTH		
5	DAY	0.1000000000E+01	DAY		
6	HOUR	0.9000000000E+01	HOUR		
7	MINUTE	0.3000000000E+01	MINUTE		
8	LATITUDE (HIGH	0.6343000000E+02	DEGREE		
9	LONGITUDE (HIGH	0.2013000000E+02	DEGREE		
10	PHASE OF AIRCRA	0.3000000000E+01	CODE TABLE	8004	
11	HEIGHT OR ALTIT	0.1128000000E+05	M		
12	TEMPERATURE/DRY	0.2162000000E+03	K		
13	WIND DIRECTION	0.4000000000E+01	DEGREE TRUE		
14	WIND SPEED	0.1600000000E+02	M/S		
15	DEGREE OF TURBU		MISSING CODE TABLE	11031	
16	HEIGHT OF BASE		MISSING M		
17	HEIGHT OF TOP O		MISSING M		
18	AIRFRAME ICING		MISSING CODE TABLE	20041	
19	QUALITY INFORMA	0.0000000000E+00			
20	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
21	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
22	DATA PRESENT IN	0.0000000000E+00	NUMERIC		
23	DATA PRESENT IN	0.0000000000E+00	NUMERIC		

```
24 DATA PRESENT IN      0.0000000000E+00 NUMERIC
25 DATA PRESENT IN      0.0000000000E+00 NUMERIC
26 DATA PRESENT IN      0.0000000000E+00 NUMERIC
27 DATA PRESENT IN      0.0000000000E+00 NUMERIC
28 DATA PRESENT IN      0.0000000000E+00 NUMERIC
29 DATA PRESENT IN      0.0000000000E+00 NUMERIC
30 DATA PRESENT IN      0.0000000000E+00 NUMERIC
31 DATA PRESENT IN      0.0000000000E+00 NUMERIC
32 DATA PRESENT IN      0.0000000000E+00 NUMERIC
33 DATA PRESENT IN      0.0000000000E+00 NUMERIC
34 DATA PRESENT IN      0.0000000000E+00 NUMERIC
35 DATA PRESENT IN      0.0000000000E+00 NUMERIC
36 DATA PRESENT IN      0.0000000000E+00 NUMERIC
37 DATA PRESENT IN      0.0000000000E+00 NUMERIC
38 IDENTIFICATION        0.9800000000E+02 CODE TABLE 1031
39 GENERATING APPL       0.1000000000E+01 CODE TABLE 1032
40 % CONFIDENCE          0.7000000000E+02 NUMERIC
41 % CONFIDENCE          0.7000000000E+02 NUMERIC
42 % CONFIDENCE          0.7000000000E+02 NUMERIC
43 % CONFIDENCE          0.7000000000E+02 NUMERIC
44 % CONFIDENCE          0.7000000000E+02 NUMERIC
45 % CONFIDENCE          0.7000000000E+02 NUMERIC
46 % CONFIDENCE          0.7000000000E+02 NUMERIC
47 % CONFIDENCE          0.8900000000E+02 NUMERIC
48 % CONFIDENCE          0.8900000000E+02 NUMERIC
49 % CONFIDENCE          0.7000000000E+02 NUMERIC
50 % CONFIDENCE          0.7900000000E+02 NUMERIC
51 % CONFIDENCE          0.7000000000E+02 NUMERIC
52 % CONFIDENCE          0.7000000000E+02 NUMERIC
53 % CONFIDENCE          0.7000000000E+02 NUMERIC
54 % CONFIDENCE          0.7000000000E+02 NUMERIC
55 % CONFIDENCE          0.7000000000E+02 NUMERIC
56 % CONFIDENCE          0.7000000000E+02 NUMERIC
57 % CONFIDENCE          0.7000000000E+02 NUMERIC
```



## 3.28 ACAR data

RDB type 7, subtype 145

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)          8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 238
    BUFR EDITION NUMBER                  3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)          18
    BUFR EDITION NUMBER                  3
    ORIGINATING SUB-CENTRE                0
    ORIGINATING CENTRE                   98
    UPDATE SEQUENCE NUMBER                0
    FLAG (PRESENCE OF SECTION 2)         128
    BUFR MESSAGE TYPE                    4
    BUFR MESSAGE SUBTYPE                 145
    VERSION NUMBER OF LOCAL TABLE        1
    YEAR                                 1
    MONTH                               2
    DAY                                 1
    HOUR                                9
    MINUTE                              1
    VERSION NUMBER OF MASTER TABLE        6
    BUFR MASTER TABLE                   0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2                   52

    REPORT DATA BASE KEY

    RDB DATA TYPE                       7
    RDB DATA SUBTYPE                   145
    YEAR                               2001
    MONTH                              2
    DAY                                1
    HOUR                                9
    MINUTE                              1
    SECOND                              0
    LATITUDE 1                         38.40
    LONGITUDE 1                       -86.58
    IDENTIFIER                         3FRBEERA
    TOTAL BUFR MESSAGE LENGTH           238
    DAY (RDB INSERTION)                 1
    HOUR (RDB INSERTION)                 9
    MINUTE (RDB INSERTION)              15
    SECOND (RDB INSERTION)              53
    DAY (MDB ARRIVAL)                   1
    HOUR (MDB ARRIVAL)                  9
    MINUTE (MDB ARRIVAL)                14
    SECOND (MDB ARRIVAL)                34
    CORRECTION NUMBER                   0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                   0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                   0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                   0
    PART OF MESSAGE                     0
    QUALITY CONTROL % CONF              70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)          78
    RESERVED                             0
    NUMBER OF DATA SUBSETS              1
    FLAG (DATA TYPE/DATA COMPRESSION)    128

    DATA DESCRIPTORS (UNEXPANDED)

    1 001006
    2 001008

```

3 002061  
4 002062  
5 002002  
6 002005  
7 002070  
8 002063  
9 002001  
10 004001  
11 004002  
12 004003  
13 004004  
14 004005  
15 005002  
16 006002  
17 008004  
18 007004  
19 008021  
20 011001  
21 011002  
22 011031  
23 011034  
24 011035  
25 012001  
26 012003  
27 013003  
28 020041  
29 222000  
30 101028  
31 031031  
32 001031  
33 001201  
34 101028  
35 033007

## DATA DESCRIPTORS (EXPANDED)

1 001006 AIRCRAFT FLIGHT NUMBER  
2 001008 AIRCRAFT REGISTRATION NUMBER  
3 002061 AIRCRAFT NAVIGATIONAL SYSTEM  
4 002062 TYPE OF AIRCRAFT DATA RELAY SYSTEM  
5 002002 TYPE OF INSTRUMENTATION FOR WIND MEASUREMENT  
6 002005 PRECISION OF TEMPERATURE OBSERVATION  
7 002070 ORIGINAL SPECIFICATION OF LATITUDE/LONGITUDE  
8 002063 AIRCRAFT ROLL ANGLE  
9 002001 TYPE OF STATION  
10 004001 YEAR  
11 004002 MONTH  
12 004003 DAY  
13 004004 HOUR  
14 004005 MINUTE  
15 005002 LATITUDE (COARSE ACCURACY)  
16 006002 LONGITUDE (COARSE ACCURACY)  
17 008004 PHASE OF AIRCRAFT FLIGHT  
18 007004 PRESSURE  
19 008021 TIME SIGNIFICANCE  
20 011001 WIND DIRECTION  
21 011002 WIND SPEED  
22 011031 DEGREE OF TURBULENCE  
23 011034 VERTICAL GUST VELOCITY  
24 011035 VERTICAL GUST ACCELERATION  
25 012001 TEMPERATURE/DRY BULB TEMPERATURE  
26 012003 DEW POINT TEMPERATURE  
27 013003 RELATIVE HUMIDITY  
28 020041 AIRFRAME ICING  
29 222000 QUALITY INFORMATION FOLLOW  
30 031031 DATA PRESENT INDICATOR  
31 031031 DATA PRESENT INDICATOR  
32 031031 DATA PRESENT INDICATOR  
33 031031 DATA PRESENT INDICATOR  
34 031031 DATA PRESENT INDICATOR  
35 031031 DATA PRESENT INDICATOR  
36 031031 DATA PRESENT INDICATOR  
37 031031 DATA PRESENT INDICATOR  
38 031031 DATA PRESENT INDICATOR  
39 031031 DATA PRESENT INDICATOR  
40 031031 DATA PRESENT INDICATOR  
41 031031 DATA PRESENT INDICATOR  
42 031031 DATA PRESENT INDICATOR  
43 031031 DATA PRESENT INDICATOR  
44 031031 DATA PRESENT INDICATOR  
45 031031 DATA PRESENT INDICATOR  
46 031031 DATA PRESENT INDICATOR  
47 031031 DATA PRESENT INDICATOR  
48 031031 DATA PRESENT INDICATOR  
49 031031 DATA PRESENT INDICATOR  
50 031031 DATA PRESENT INDICATOR  
51 031031 DATA PRESENT INDICATOR  
52 031031 DATA PRESENT INDICATOR  
53 031031 DATA PRESENT INDICATOR  
54 031031 DATA PRESENT INDICATOR  
55 031031 DATA PRESENT INDICATOR  
56 031031 DATA PRESENT INDICATOR

```

57 031031 DATA PRESENT INDICATOR
58 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
59 001201 GENERATING APPLICATION
60 033007 % CONFIDENCE
61 033007 % CONFIDENCE
62 033007 % CONFIDENCE
63 033007 % CONFIDENCE
64 033007 % CONFIDENCE
65 033007 % CONFIDENCE
66 033007 % CONFIDENCE
67 033007 % CONFIDENCE
68 033007 % CONFIDENCE
69 033007 % CONFIDENCE
70 033007 % CONFIDENCE
71 033007 % CONFIDENCE
72 033007 % CONFIDENCE
73 033007 % CONFIDENCE
74 033007 % CONFIDENCE
75 033007 % CONFIDENCE
76 033007 % CONFIDENCE
77 033007 % CONFIDENCE
78 033007 % CONFIDENCE
79 033007 % CONFIDENCE
80 033007 % CONFIDENCE
81 033007 % CONFIDENCE
82 033007 % CONFIDENCE
83 033007 % CONFIDENCE
84 033007 % CONFIDENCE
85 033007 % CONFIDENCE
86 033007 % CONFIDENCE
87 033007 % CONFIDENCE
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 AIRCRAFT FLIGHT 0.1008000000E+04 CCITTIA5 3FRBEERA
2 AIRCRAFT REGIST 0.2008000000E+04 CCITTIA5 GSWGUAZA
3 AIRCRAFT NAVIGA MISSING CODE TABLE 2061
4 TYPE OF AIRCRAF 0.3000000000E+01 CODE TABLE 2062
5 TYPE OF INSTRUM 0.4000000000E+01 FLAG TABLE 2002
6 PRECISION OF TE 0.2500000000E+00 K
7 ORIGINAL SPECIF 0.1000000000E+01 CODE TABLE 2070
8 AIRCRAFT ROLL A MISSING DEGREE
9 TYPE OF STATION 0.0000000000E+00 CODE TABLE 2001
10 YEAR 0.2001000000E+04 YEAR
11 MONTH 0.2000000000E+01 MONTH
12 DAY 0.1000000000E+01 DAY
13 HOUR 0.9000000000E+01 HOUR
14 MINUTE 0.1000000000E+01 MINUTE
15 LATITUDE (COARS 0.3840000000E+02 DEGREE
16 LONGITUDE (COAR -0.8658000000E+02 DEGREE
17 PHASE OF AIRCRA MISSING CODE TABLE 8004
18 PRESSURE 0.3810000000E+05 PA
19 TIME SIGNIFICAN MISSING CODE TABLE 8021
20 WIND DIRECTION 0.2620000000E+03 DEGREE TRUE
21 WIND SPEED 0.4420000000E+02 M/S
22 DEGREE OF TURBU MISSING CODE TABLE 11031
23 VERTICAL GUST V MISSING M/S
24 VERTICAL GUST A MISSING M/S**2
25 TEMPERATURE/DRY 0.2366000000E+03 K
26 DEW POINT TEMPE MISSING K
27 RELATIVE HUMIDI MISSING %
28 AIRFRAME ICING MISSING CODE TABLE 20041
29 QUALITY INFORMA 0.0000000000E+00
30 DATA PRESENT IN 0.0000000000E+00 NUMERIC
31 DATA PRESENT IN 0.0000000000E+00 NUMERIC
32 DATA PRESENT IN 0.0000000000E+00 NUMERIC
33 DATA PRESENT IN 0.0000000000E+00 NUMERIC
34 DATA PRESENT IN 0.0000000000E+00 NUMERIC
35 DATA PRESENT IN 0.0000000000E+00 NUMERIC
36 DATA PRESENT IN 0.0000000000E+00 NUMERIC
37 DATA PRESENT IN 0.0000000000E+00 NUMERIC
38 DATA PRESENT IN 0.0000000000E+00 NUMERIC
39 DATA PRESENT IN 0.0000000000E+00 NUMERIC
40 DATA PRESENT IN 0.0000000000E+00 NUMERIC
41 DATA PRESENT IN 0.0000000000E+00 NUMERIC
42 DATA PRESENT IN 0.0000000000E+00 NUMERIC
43 DATA PRESENT IN 0.0000000000E+00 NUMERIC
44 DATA PRESENT IN 0.0000000000E+00 NUMERIC
45 DATA PRESENT IN 0.0000000000E+00 NUMERIC
46 DATA PRESENT IN 0.0000000000E+00 NUMERIC
47 DATA PRESENT IN 0.0000000000E+00 NUMERIC
48 DATA PRESENT IN 0.0000000000E+00 NUMERIC
49 DATA PRESENT IN 0.0000000000E+00 NUMERIC
50 DATA PRESENT IN 0.0000000000E+00 NUMERIC
51 DATA PRESENT IN 0.0000000000E+00 NUMERIC
52 DATA PRESENT IN 0.0000000000E+00 NUMERIC
53 DATA PRESENT IN 0.0000000000E+00 NUMERIC
54 DATA PRESENT IN 0.0000000000E+00 NUMERIC
55 DATA PRESENT IN 0.0000000000E+00 NUMERIC
56 DATA PRESENT IN 0.0000000000E+00 NUMERIC
57 DATA PRESENT IN 0.0000000000E+00 NUMERIC
58 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
59 GENERATING APPL 0.1000000000E+01 CODE TABLE 1201

```

```
60 % CONFIDENCE      0.7000000000E+02 NUMERIC
61 % CONFIDENCE      0.7000000000E+02 NUMERIC
62 % CONFIDENCE      MISSING NUMERIC
63 % CONFIDENCE      0.7000000000E+02 NUMERIC
64 % CONFIDENCE      0.7000000000E+02 NUMERIC
65 % CONFIDENCE      0.7000000000E+02 NUMERIC
66 % CONFIDENCE      0.7000000000E+02 NUMERIC
67 % CONFIDENCE      MISSING NUMERIC
68 % CONFIDENCE      0.7000000000E+02 NUMERIC
69 % CONFIDENCE      0.7000000000E+02 NUMERIC
70 % CONFIDENCE      0.7000000000E+02 NUMERIC
71 % CONFIDENCE      0.7000000000E+02 NUMERIC
72 % CONFIDENCE      0.7000000000E+02 NUMERIC
73 % CONFIDENCE      0.7000000000E+02 NUMERIC
74 % CONFIDENCE      0.8700000000E+02 NUMERIC
75 % CONFIDENCE      0.8700000000E+02 NUMERIC
76 % CONFIDENCE      MISSING NUMERIC
77 % CONFIDENCE      0.7900000000E+02 NUMERIC
78 % CONFIDENCE      MISSING NUMERIC
79 % CONFIDENCE      0.7000000000E+02 NUMERIC
80 % CONFIDENCE      0.7000000000E+02 NUMERIC
81 % CONFIDENCE      MISSING NUMERIC
82 % CONFIDENCE      MISSING NUMERIC
83 % CONFIDENCE      MISSING NUMERIC
84 % CONFIDENCE      0.7000000000E+02 NUMERIC
85 % CONFIDENCE      MISSING NUMERIC
86 % CONFIDENCE      MISSING NUMERIC
87 % CONFIDENCE      MISSING NUMERIC
```

## 3.29 Bogus data

RDB type 10, subtype 164

```

                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 154
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE              98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                253
    BUFR MESSAGE SUBTYPE             164
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              1
    HOUR                             12
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE   6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   10
    RDB DATA SUBTYPE                164
    YEAR                             2001
    MONTH                            2
    DAY                              1
    HOUR                             12
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       -10.00
    LONGITUDE 1                      10.00
    IDENTIFIER                        PAOB
    TOTAL BUFR MESSAGE LENGTH        154
    DAY (RDB INSERTION)              1
    HOUR (RDB INSERTION)             16
    MINUTE (RDB INSERTION)           53
    SECOND (RDB INSERTION)           40
    DAY (MDB ARRIVAL)                1
    HOUR (MDB ARRIVAL)              16
    MINUTE (MDB ARRIVAL)             50
    SECOND (MDB ARRIVAL)            41
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      36
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 128

    DATA DESCRIPTORS (UNEXPANDED)

    1 301011
    2 301012

```

```
3 301021
4 010051
5 007004
6 007004
7 012007
8 222000
9 101011
10 031031
11 001031
12 001032
13 101011
14 033007
```

## DATA DESCRIPTORS (EXPANDED)

```
1 004001 YEAR
2 004002 MONTH
3 004003 DAY
4 004004 HOUR
5 004005 MINUTE
6 005001 LATITUDE (HIGH ACCURACY)
7 006001 LONGITUDE (HIGH ACCURACY)
8 010051 PRESSURE REDUCED TO MEAN SEA LEVEL
9 007004 PRESSURE
10 007004 PRESSURE
11 012007 VIRTUAL TEMPERATURE
12 222000 QUALITY INFORMATION FOLLOW
13 031031 DATA PRESENT INDICATOR
14 031031 DATA PRESENT INDICATOR
15 031031 DATA PRESENT INDICATOR
16 031031 DATA PRESENT INDICATOR
17 031031 DATA PRESENT INDICATOR
18 031031 DATA PRESENT INDICATOR
19 031031 DATA PRESENT INDICATOR
20 031031 DATA PRESENT INDICATOR
21 031031 DATA PRESENT INDICATOR
22 031031 DATA PRESENT INDICATOR
23 031031 DATA PRESENT INDICATOR
24 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
25 001032 GENERATING APPLICATION
26 033007 % CONFIDENCE
27 033007 % CONFIDENCE
28 033007 % CONFIDENCE
29 033007 % CONFIDENCE
30 033007 % CONFIDENCE
31 033007 % CONFIDENCE
32 033007 % CONFIDENCE
33 033007 % CONFIDENCE
34 033007 % CONFIDENCE
35 033007 % CONFIDENCE
36 033007 % CONFIDENCE
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 YEAR 0.2001000000E+04 YEAR
2 MONTH 0.2000000000E+01 MONTH
3 DAY 0.1000000000E+01 DAY
4 HOUR 0.1200000000E+02 HOUR
5 MINUTE 0.0000000000E+00 MINUTE
6 LATITUDE (HIGH -0.1000000000E+02 DEGREE
7 LONGITUDE (HIGH 0.1000000000E+02 DEGREE
8 PRESSURE REDUCE 0.1012000000E+06 PA
9 PRESSURE 0.1000000000E+06 PA
10 PRESSURE 0.5000000000E+05 PA
11 VIRTUAL TEMPERA 0.3008000000E+03 K
12 QUALITY INFORMA 0.0000000000E+00
13 DATA PRESENT IN 0.0000000000E+00 NUMERIC
14 DATA PRESENT IN 0.0000000000E+00 NUMERIC
15 DATA PRESENT IN 0.0000000000E+00 NUMERIC
16 DATA PRESENT IN 0.0000000000E+00 NUMERIC
17 DATA PRESENT IN 0.0000000000E+00 NUMERIC
18 DATA PRESENT IN 0.0000000000E+00 NUMERIC
19 DATA PRESENT IN 0.0000000000E+00 NUMERIC
20 DATA PRESENT IN 0.0000000000E+00 NUMERIC
21 DATA PRESENT IN 0.0000000000E+00 NUMERIC
22 DATA PRESENT IN 0.0000000000E+00 NUMERIC
23 DATA PRESENT IN 0.0000000000E+00 NUMERIC
24 IDENTIFICATION 0.9800000000E+02 CODE TABLE 1031
25 GENERATING APPL 0.1000000000E+01 CODE TABLE 1032
26 % CONFIDENCE 0.7000000000E+02 NUMERIC
27 % CONFIDENCE 0.7000000000E+02 NUMERIC
28 % CONFIDENCE 0.7000000000E+02 NUMERIC
29 % CONFIDENCE 0.7000000000E+02 NUMERIC
30 % CONFIDENCE 0.7000000000E+02 NUMERIC
31 % CONFIDENCE 0.7000000000E+02 NUMERIC
32 % CONFIDENCE 0.7000000000E+02 NUMERIC
33 % CONFIDENCE 0.7000000000E+02 NUMERIC
34 % CONFIDENCE 0.7000000000E+02 NUMERIC
35 % CONFIDENCE 0.7000000000E+02 NUMERIC
36 % CONFIDENCE 0.7000000000E+02 NUMERIC
```

## 3.30 RTOVS

RDB type 2, subtype 53

```

          ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
      25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 3544
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 3
    BUFR MESSAGE SUBTYPE              53
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                             2
    DAY                              14
    HOUR                             9
    MINUTE                           1
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    2
    RDB DATA SUBTYPE                 53
    YEAR                             2001
    MONTH                             2
    DAY                              14
    HOUR                             9
    MINUTE                           1
    SECOND                           5
    LATITUDE 1                       39.95
    LONGITUDE 1                      84.65
    LATITUDE 2                       58.04
    LONGITUDE 2                     117.27
    NUMBER OF OBSERVATIONS            52
    IDENTIFIER                       206
    TOTAL BUFR MESSAGE LENGTH        3544
    DAY (RDB INSERTION)              14
    HOUR (RDB INSERTION)             10
    MINUTE (RDB INSERTION)           14
    SECOND (RDB INSERTION)           12
    DAY (MDB ARRIVAL)                14
    HOUR (MDB ARRIVAL)               10
    MINUTE (MDB ARRIVAL)             10
    SECOND (MDB ARRIVAL)              2
    CORRECTION NUMBER                0
    PART OF MESSAGE                  1
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      96
    RESERVED                          0
    NUMBER OF DATA SUBSETS           52
    FLAG (DATA TYPE/DATA COMPRESSION) 192

```

DATA DESCRIPTORS (UNEXPANDED)

1 001007  
2 004001  
3 004002  
4 004003  
5 004004  
6 004005  
7 004006  
8 005002  
9 006002  
10 007022  
11 002025  
12 002022  
13 027020  
14 008003  
15 015001  
16 008003  
17 010004  
18 020010  
19 008003  
20 008012  
21 010001  
22 012061  
23 010004  
24 008003  
25 103015  
26 007004  
27 007004  
28 012007  
29 008003  
30 103003  
31 007004  
32 007004  
33 013016  
34 008003  
35 101019  
36 012062  
37 201132  
38 012062  
39 201000  
40 101007  
41 012062  
42 008003  
43 010004  
44 012001

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 004001 YEAR  
3 004002 MONTH  
4 004003 DAY  
5 004004 HOUR  
6 004005 MINUTE  
7 004006 SECOND  
8 005002 LATITUDE (COARSE ACCURACY)  
9 006002 LONGITUDE (COARSE ACCURACY)  
10 007022 SOLAR ELEVATION  
11 002025 SATELLITE CHANNEL(S) USED IN COMPUTATION  
12 002022 SATELLITE DATA PROCESSING TECHNIQUE USED  
13 027020 SATELLITE LOCATION COUNTER  
14 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
15 015001 OZON  
16 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
17 010004 PRESSURE  
18 020010 CLOUD COVER (TOTAL)  
19 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
20 008012 LAND/SEA QUALIFIER  
21 010001 HEIGHT OF LAND SURFACE  
22 012061 SKIN TEMPERATURE  
23 010004 PRESSURE  
24 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
25 007004 PRESSURE  
26 007004 PRESSURE  
27 012007 VIRTUAL TEMPERATURE  
28 007004 PRESSURE  
29 007004 PRESSURE  
30 012007 VIRTUAL TEMPERATURE  
31 007004 PRESSURE  
32 007004 PRESSURE  
33 012007 VIRTUAL TEMPERATURE  
34 007004 PRESSURE  
35 007004 PRESSURE  
36 012007 VIRTUAL TEMPERATURE  
37 007004 PRESSURE  
38 007004 PRESSURE  
39 012007 VIRTUAL TEMPERATURE  
40 007004 PRESSURE  
41 007004 PRESSURE  
42 012007 VIRTUAL TEMPERATURE  
43 007004 PRESSURE  
44 007004 PRESSURE  
45 012007 VIRTUAL TEMPERATURE



```

46 007004 PRESSURE
47 007004 PRESSURE
48 012007 VIRTUAL TEMPERATURE
49 007004 PRESSURE
50 007004 PRESSURE
51 012007 VIRTUAL TEMPERATURE
52 007004 PRESSURE
53 007004 PRESSURE
54 012007 VIRTUAL TEMPERATURE
55 007004 PRESSURE
56 007004 PRESSURE
57 012007 VIRTUAL TEMPERATURE
58 007004 PRESSURE
59 007004 PRESSURE
60 012007 VIRTUAL TEMPERATURE
61 007004 PRESSURE
62 007004 PRESSURE
63 012007 VIRTUAL TEMPERATURE
64 007004 PRESSURE
65 007004 PRESSURE
66 012007 VIRTUAL TEMPERATURE
67 007004 PRESSURE
68 007004 PRESSURE
69 012007 VIRTUAL TEMPERATURE
70 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
71 007004 PRESSURE
72 007004 PRESSURE
73 013016 PRECIPITABLE WATER
74 007004 PRESSURE
75 007004 PRESSURE
76 013016 PRECIPITABLE WATER
77 007004 PRESSURE
78 007004 PRESSURE
79 013016 PRECIPITABLE WATER
80 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
81 012062 EQUIVALENT BLACK BODY TEMPERATURE
82 012062 EQUIVALENT BLACK BODY TEMPERATURE
83 012062 EQUIVALENT BLACK BODY TEMPERATURE
84 012062 EQUIVALENT BLACK BODY TEMPERATURE
85 012062 EQUIVALENT BLACK BODY TEMPERATURE
86 012062 EQUIVALENT BLACK BODY TEMPERATURE
87 012062 EQUIVALENT BLACK BODY TEMPERATURE
88 012062 EQUIVALENT BLACK BODY TEMPERATURE
89 012062 EQUIVALENT BLACK BODY TEMPERATURE
90 012062 EQUIVALENT BLACK BODY TEMPERATURE
91 012062 EQUIVALENT BLACK BODY TEMPERATURE
92 012062 EQUIVALENT BLACK BODY TEMPERATURE
93 012062 EQUIVALENT BLACK BODY TEMPERATURE
94 012062 EQUIVALENT BLACK BODY TEMPERATURE
95 012062 EQUIVALENT BLACK BODY TEMPERATURE
96 012062 EQUIVALENT BLACK BODY TEMPERATURE
97 012062 EQUIVALENT BLACK BODY TEMPERATURE
98 012062 EQUIVALENT BLACK BODY TEMPERATURE
99 012062 EQUIVALENT BLACK BODY TEMPERATURE
100 012062 EQUIVALENT BLACK BODY TEMPERATURE
101 012062 EQUIVALENT BLACK BODY TEMPERATURE
102 012062 EQUIVALENT BLACK BODY TEMPERATURE
103 012062 EQUIVALENT BLACK BODY TEMPERATURE
104 012062 EQUIVALENT BLACK BODY TEMPERATURE
105 012062 EQUIVALENT BLACK BODY TEMPERATURE
106 012062 EQUIVALENT BLACK BODY TEMPERATURE
107 012062 EQUIVALENT BLACK BODY TEMPERATURE
108 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
109 010004 PRESSURE
110 012001 TEMPERATURE/DRY BULB TEMPERATURE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

1 SATELLITE IDENT      0.2060000000E+03 CODE TABLE 1007
2 YEAR                0.2001000000E+04 YEAR
3 MONTH              0.2000000000E+01 MONTH
4 DAY                0.1400000000E+02 DAY
5 HOUR              0.9000000000E+01 HOUR
6 MINUTE            0.1000000000E+01 MINUTE
7 SECOND            0.5000000000E+01 SECOND
8 LATITUDE (COARS    0.4030000000E+02 DEGREE
9 LONGITUDE (COAR    0.1172700000E+03 DEGREE
10 SOLAR ELEVATION   -0.6980000000E+01 DEGREE
11 SATELLITE CHANN    0.1260879600E+08 FLAG TABLE 2025
12 SATELLITE DATA    0.3200000000E+02 FLAG TABLE 2022
13 SATELLITE LOCAT    0.2205200000E+05 NUMERIC
14 VERTICAL SIGNIF    0.7000000000E+01 CODE TABLE 8003
15 OZON              0.4020000000E+03 DOBSON
16 VERTICAL SIGNIF    0.2000000000E+01 CODE TABLE 8003
17 PRESSURE          MISSING PA
18 CLOUD COVER (TO    0.1000000000E+03 %
19 VERTICAL SIGNIF    0.0000000000E+00 CODE TABLE 8003
20 LAND/SEA QUALIF    0.0000000000E+00 CODE TABLE 8012
21 HEIGHT OF LAND     0.5800000000E+03 M
22 SKIN TEMPERATUR    0.2685000000E+03 K
23 PRESSURE          0.9500000000E+05 PA
24 VERTICAL SIGNIF    0.6000000000E+01 CODE TABLE 8003

```

25	PRESSURE	0.9500000000E+05	PA	
26	PRESSURE	0.8500000000E+05	PA	
27	VIRTUAL TEMPERA	0.2670000000E+03	K	
28	PRESSURE	0.8500000000E+05	PA	
29	PRESSURE	0.7000000000E+05	PA	
30	VIRTUAL TEMPERA	0.2576000000E+03	K	
31	PRESSURE	0.7000000000E+05	PA	
32	PRESSURE	0.5000000000E+05	PA	
33	VIRTUAL TEMPERA	0.2459000000E+03	K	
34	PRESSURE	0.5000000000E+05	PA	
35	PRESSURE	0.4000000000E+05	PA	
36	VIRTUAL TEMPERA	0.2361000000E+03	K	
37	PRESSURE	0.4000000000E+05	PA	
38	PRESSURE	0.3000000000E+05	PA	
39	VIRTUAL TEMPERA	0.2261000000E+03	K	
40	PRESSURE	0.3000000000E+05	PA	
41	PRESSURE	0.2000000000E+05	PA	
42	VIRTUAL TEMPERA	0.2182000000E+03	K	
43	PRESSURE	0.2000000000E+05	PA	
44	PRESSURE	0.1000000000E+05	PA	
45	VIRTUAL TEMPERA	0.2173000000E+03	K	
46	PRESSURE	0.1000000000E+05	PA	
47	PRESSURE	0.7000000000E+04	PA	
48	VIRTUAL TEMPERA	0.2136000000E+03	K	
49	PRESSURE	0.7000000000E+04	PA	
50	PRESSURE	0.5000000000E+04	PA	
51	VIRTUAL TEMPERA	0.2153000000E+03	K	
52	PRESSURE	0.5000000000E+04	PA	
53	PRESSURE	0.3000000000E+04	PA	
54	VIRTUAL TEMPERA	0.2194000000E+03	K	
55	PRESSURE	0.3000000000E+04	PA	
56	PRESSURE	0.1000000000E+04	PA	
57	VIRTUAL TEMPERA	0.2283000000E+03	K	
58	PRESSURE	0.1000000000E+04	PA	
59	PRESSURE	0.5000000000E+03	PA	
60	VIRTUAL TEMPERA	0.2350000000E+03	K	
61	PRESSURE	0.5000000000E+03	PA	
62	PRESSURE	0.2000000000E+03	PA	
63	VIRTUAL TEMPERA	0.2476000000E+03	K	
64	PRESSURE	0.2000000000E+03	PA	
65	PRESSURE	0.1000000000E+03	PA	
66	VIRTUAL TEMPERA	0.2549000000E+03	K	
67	PRESSURE	0.1000000000E+03	PA	
68	PRESSURE	0.4000000000E+02	PA	
69	VIRTUAL TEMPERA	0.2478000000E+03	K	
70	VERTICAL SIGNIF	0.4000000000E+01	CODE TABLE	8003
71	PRESSURE	0.9500000000E+05	PA	
72	PRESSURE	0.7000000000E+05	PA	
73	PRECIPITABLE WA	0.1000000000E+01	KG/M**2	
74	PRESSURE	0.7000000000E+05	PA	
75	PRESSURE	0.5000000000E+05	PA	
76	PRECIPITABLE WA	0.1000000000E+01	KG/M**2	
77	PRESSURE	0.5000000000E+05	PA	
78	PRESSURE	0.3000000000E+05	PA	
79	PRECIPITABLE WA	0.0000000000E+00	KG/M**2	
80	VERTICAL SIGNIF	0.5000000000E+01	CODE TABLE	8003
81	EQUIVALENT BLAC	0.2320000000E+03	K	
82	EQUIVALENT BLAC	0.2232000000E+03	K	
83	EQUIVALENT BLAC	0.2215000000E+03	K	
84	EQUIVALENT BLAC	0.2263000000E+03	K	
85	EQUIVALENT BLAC	0.2353000000E+03	K	
86	EQUIVALENT BLAC	0.2454000000E+03	K	
87	EQUIVALENT BLAC	0.2559000000E+03	K	
88	EQUIVALENT BLAC	0.2685000000E+03	K	
89	EQUIVALENT BLAC	0.2465000000E+03	K	
90	EQUIVALENT BLAC	0.2657000000E+03	K	
91	EQUIVALENT BLAC	0.2518000000E+03	K	
92	EQUIVALENT BLAC	0.2396000000E+03	K	
93	EQUIVALENT BLAC	0.2522000000E+03	K	
94	EQUIVALENT BLAC	0.2458000000E+03	K	
95	EQUIVALENT BLAC	0.2336000000E+03	K	
96	EQUIVALENT BLAC	0.2244000000E+03	K	
97	EQUIVALENT BLAC	0.2619000000E+03	K	
98	EQUIVALENT BLAC	0.2684000000E+03	K	
99	EQUIVALENT BLAC	0.2720000000E+03	K	
100	EQUIVALENT BLAC	0.1292300000E+04	K	
101	EQUIVALENT BLAC	0.2577000000E+03	K	
102	EQUIVALENT BLAC	0.2390000000E+03	K	
103	EQUIVALENT BLAC	0.2220000000E+03	K	
104	EQUIVALENT BLAC	0.2172000000E+03	K	
105	EQUIVALENT BLAC	0.2294000000E+03	K	
106	EQUIVALENT BLAC	0.2374000000E+03	K	
107	EQUIVALENT BLAC	0.2446000000E+03	K	
108	VERTICAL SIGNIF	0.3000000000E+01	CODE TABLE	8003
109	PRESSURE	0.2570000000E+05	PA	
110	TEMPERATURE/DRY	0.2168000000E+03	K	

## 3.31 ATOVS data

RDB type 2, subtype 55

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 1512
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE              98
    UPDATE SEQUENCE NUMBER           0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                3
    BUFR MESSAGE SUBTYPE             55
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             1
    MONTH                            2
    DAY                              14
    HOUR                             3
    MINUTE                           1
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   2
    RDB DATA SUBTYPE                55
    YEAR                             2001
    MONTH                            2
    DAY                              14
    HOUR                             3
    MINUTE                           1
    SECOND                           1
    LATITUDE 1                       -31.17
    LONGITUDE 1                      -119.89
    LATITUDE 2                       -27.70
    LONGITUDE 2                      -99.33
    NUMBER OF OBSERVATIONS            30
    IDENTIFIER                       205
    TOTAL BUFR MESSAGE LENGTH        1512
    DAY (RDB INSERTION)              14
    HOUR (RDB INSERTION)              4
    MINUTE (RDB INSERTION)            3
    SECOND (RDB INSERTION)            47
    DAY (MDB ARRIVAL)                14
    HOUR (MDB ARRIVAL)                4
    MINUTE (MDB ARRIVAL)              1
    SECOND (MDB ARRIVAL)              7
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      10
    RESERVED                          0
    NUMBER OF DATA SUBSETS           30
    FLAG (DATA TYPE/DATA COMPRESSION) 192

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## DATA DESCRIPTORS (UNEXPANDED)

1 310008

## DATA DESCRIPTORS (EXPANDED)

```
1 008070 TOVS/ATOVS PRODUCT QUALIFIER
2 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
3 001034 IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE
4 008070 TOVS/ATOVS PRODUCT QUALIFIER
5 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
6 001034 IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE
7 001007 SATELLITE IDENTIFIER
8 002048 SATELLITE SENSOR INDICATOR
9 005040 ORBIT NUMBER
10 025075 SATELLITE ANTENNA CORRECTIONS VERSION NUMBER
11 005041 SCAN LINE NUMBER
12 005043 FIELD OF VIEW NUMBER
13 025070 MAJOR FRAME COUNT
14 033030 SCAN LINE STATUS FLAGS FOR ATOVS
15 033031 SCAN LINE QUALITY FLAGS FOR ATOVS
16 004001 YEAR
17 004002 MONTH
18 004003 DAY
19 004004 HOUR
20 004005 MINUTE
21 004006 SECOND
22 005001 LATITUDE (HIGH ACCURACY)
23 006001 LONGITUDE (HIGH ACCURACY)
24 007001 HEIGHT OF STATION
25 007024 SATELLITE ZENITH ANGLE
26 005021 BEARING OR AZIMUTH
27 007025 SOLAR ZENITH ANGLE
28 005022 SOLAR AZIMUTH
29 033033 FIELD OF VIEW QUALITY FLAGS FOR ATOVS
30 002151 RADIOMETER IDENTIFIER
31 012064 INSTRUMENT TEMPERATURE
32 002151 RADIOMETER IDENTIFIER
33 012064 INSTRUMENT TEMPERATURE
34 002151 RADIOMETER IDENTIFIER
35 012064 INSTRUMENT TEMPERATURE
36 002151 RADIOMETER IDENTIFIER
37 012064 INSTRUMENT TEMPERATURE
38 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
39 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
40 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
41 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
42 033032 CHANNEL QUALITY FLAGS FOR ATOVS
43 012063 BRIGHTNESS TEMPERATURE
44 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
45 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
46 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
47 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
48 033032 CHANNEL QUALITY FLAGS FOR ATOVS
49 012063 BRIGHTNESS TEMPERATURE
50 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
51 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
52 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
53 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
54 033032 CHANNEL QUALITY FLAGS FOR ATOVS
55 012063 BRIGHTNESS TEMPERATURE
56 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
57 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
58 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
59 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
60 033032 CHANNEL QUALITY FLAGS FOR ATOVS
61 012063 BRIGHTNESS TEMPERATURE
62 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
63 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
64 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
65 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
66 033032 CHANNEL QUALITY FLAGS FOR ATOVS
67 012063 BRIGHTNESS TEMPERATURE
68 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
69 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
70 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
71 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
72 033032 CHANNEL QUALITY FLAGS FOR ATOVS
73 012063 BRIGHTNESS TEMPERATURE
74 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
75 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
76 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
77 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
78 033032 CHANNEL QUALITY FLAGS FOR ATOVS
79 012063 BRIGHTNESS TEMPERATURE
80 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
81 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
82 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
83 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
84 033032 CHANNEL QUALITY FLAGS FOR ATOVS
85 012063 BRIGHTNESS TEMPERATURE
86 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
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87 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
88 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
89 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
90 033032 CHANNEL QUALITY FLAGS FOR ATOVS
91 012063 BRIGHTNESS TEMPERATURE
92 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
93 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
94 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
95 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
96 033032 CHANNEL QUALITY FLAGS FOR ATOVS
97 012063 BRIGHTNESS TEMPERATURE
98 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
99 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
100 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
101 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
102 033032 CHANNEL QUALITY FLAGS FOR ATOVS
103 012063 BRIGHTNESS TEMPERATURE
104 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
105 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
106 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
107 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
108 033032 CHANNEL QUALITY FLAGS FOR ATOVS
109 012063 BRIGHTNESS TEMPERATURE
110 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
111 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
112 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
113 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
114 033032 CHANNEL QUALITY FLAGS FOR ATOVS
115 012063 BRIGHTNESS TEMPERATURE
116 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
117 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
118 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
119 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
120 033032 CHANNEL QUALITY FLAGS FOR ATOVS
121 012063 BRIGHTNESS TEMPERATURE
122 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
123 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
124 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
125 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
126 033032 CHANNEL QUALITY FLAGS FOR ATOVS
127 012063 BRIGHTNESS TEMPERATURE
128 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
129 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
130 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
131 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
132 033032 CHANNEL QUALITY FLAGS FOR ATOVS
133 012063 BRIGHTNESS TEMPERATURE
134 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
135 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
136 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
137 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
138 033032 CHANNEL QUALITY FLAGS FOR ATOVS
139 012063 BRIGHTNESS TEMPERATURE
140 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
141 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
142 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
143 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
144 033032 CHANNEL QUALITY FLAGS FOR ATOVS
145 012063 BRIGHTNESS TEMPERATURE
146 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
147 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
148 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
149 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
150 033032 CHANNEL QUALITY FLAGS FOR ATOVS
151 012063 BRIGHTNESS TEMPERATURE
152 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
153 025079 ALBEDO-RADIANCE SOLAR FILTERED IRRADIANCE FOR ATOVS
154 025080 ALBEDO-RADIANCE EQUIVALENT FILTER WIDTH FOR ATOVS
155 033032 CHANNEL QUALITY FLAGS FOR ATOVS
156 014045 CHANNEL RADIANCE

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STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

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1 TOVS/ATOVS PROD      0.3000000000E+01 CODE TABLE  8070
2 IDENTIFICATION       0.7400000000E+02 CODE TABLE  1033
3 IDENTIFICATION       0.0000000000E+00 CODE TABLE  1034
4 TOVS/ATOVS PROD      0.2000000000E+01 CODE TABLE  8070
5 IDENTIFICATION       0.7400000000E+02 CODE TABLE  1033
6 IDENTIFICATION       0.0000000000E+00 CODE TABLE  1034
7 SATELLITE IDENT      0.2050000000E+03 CODE TABLE  1007
8 SATELLITE SENSO      0.3000000000E+01 CODE TABLE  2048
9 ORBIT NUMBER         0.1432800000E+05 NUMERIC
10 SATELLITE ANTEN      0.0000000000E+00 NUMERIC
11 SCAN LINE NUMBE      0.6540000000E+03 NUMERIC
12 FIELD OF VIEW N      0.1000000000E+01 NUMERIC
13 MAJOR FRAME COU      MISSING NUMERIC
14 SCAN LINE STATU      0.0000000000E+00 FLAG TABLE  33030
15 SCAN LINE QUALI      0.0000000000E+00 FLAG TABLE  33031
16 YEAR                 0.2001000000E+04 YEAR
17 MONTH                0.2000000000E+01 MONTH
18 DAY                  0.1400000000E+02 DAY
19 HOUR                 0.3000000000E+01 HOUR

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20	MINUTE	0.1000000000E+01	MINUTE	
21	SECOND	0.1734000000E+01	SECOND	
22	LATITUDE (HIGH	-0.3116540000E+02	DEGREE	
23	LONGITUDE (HIGH	-0.1198909000E+03	DEGREE	
24	HEIGHT OF STATI	0.8190000000E+06	M	
25	SATELLITE ZENIT	0.5748000000E+02	DEGREE	
26	BEARING OR AZIM	0.1925500000E+03	DEGREE TRUE	
27	SOLAR ZENITH AN	0.9317000000E+02	DEGREE	
28	SOLAR AZIMUTH	0.2528600000E+03	DEGREE TRUE	
29	FIELD OF VIEW Q	0.5120000000E+03	FLAG TABLE	33033
30	RADIOMETER IDEN	0.0000000000E+00	CODE TABLE	2151
31	INSTRUMENT TEMP	MISSING K		
32	RADIOMETER IDEN	0.3000000000E+01	CODE TABLE	2151
33	INSTRUMENT TEMP	0.1923000000E+03	K	
34	RADIOMETER IDEN	0.4000000000E+01	CODE TABLE	2151
35	INSTRUMENT TEMP	0.1654000000E+03	K	
36	RADIOMETER IDEN	0.6000000000E+01	CODE TABLE	2151
37	INSTRUMENT TEMP	MISSING K		
38	TOVS/ATOVs/AVHR	0.2800000000E+02	CODE TABLE	2150
39	LOG_10 OF (TEMP	0.1899756480E+01	LOG (1/M)	
40	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
41	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
42	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
43	BRIGHTNESS TEMP	0.2230900000E+03	K	
44	TOVS/ATOVs/AVHR	0.2900000000E+02	CODE TABLE	2150
45	LOG_10 OF (TEMP	0.2020108960E+01	LOG (1/M)	
46	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
47	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
48	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
49	BRIGHTNESS TEMP	0.1824000000E+03	K	
50	TOVS/ATOVs/AVHR	0.3000000000E+02	CODE TABLE	2150
51	LOG_10 OF (TEMP	0.2224746880E+01	LOG (1/M)	
52	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
53	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
54	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
55	BRIGHTNESS TEMP	0.2523800000E+03	K	
56	TOVS/ATOVs/AVHR	0.3100000000E+02	CODE TABLE	2150
57	LOG_10 OF (TEMP	0.2245813120E+01	LOG (1/M)	
58	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
59	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
60	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
61	BRIGHTNESS TEMP	0.2587100000E+03	K	
62	TOVS/ATOVs/AVHR	0.3200000000E+02	CODE TABLE	2150
63	LOG_10 OF (TEMP	0.2252311680E+01	LOG (1/M)	
64	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
65	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
66	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
67	BRIGHTNESS TEMP	0.2445200000E+03	K	
68	TOVS/ATOVs/AVHR	0.3300000000E+02	CODE TABLE	2150
69	LOG_10 OF (TEMP	0.2258778080E+01	LOG (1/M)	
70	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
71	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
72	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
73	BRIGHTNESS TEMP	0.2269300000E+03	K	
74	TOVS/ATOVs/AVHR	0.3400000000E+02	CODE TABLE	2150
75	LOG_10 OF (TEMP	0.2263067680E+01	LOG (1/M)	
76	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
77	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
78	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
79	BRIGHTNESS TEMP	0.2183500000E+03	K	
80	TOVS/ATOVs/AVHR	0.3500000000E+02	CODE TABLE	2150
81	LOG_10 OF (TEMP	0.2267472320E+01	LOG (1/M)	
82	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
83	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
84	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
85	BRIGHTNESS TEMP	0.2126700000E+03	K	
86	TOVS/ATOVs/AVHR	0.3600000000E+02	CODE TABLE	2150
87	LOG_10 OF (TEMP	0.2281260800E+01	LOG (1/M)	
88	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
89	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
90	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
91	BRIGHTNESS TEMP	0.2121900000E+03	K	
92	TOVS/ATOVs/AVHR	0.3700000000E+02	CODE TABLE	2150
93	LOG_10 OF (TEMP	0.2281260800E+01	LOG (1/M)	
94	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
95	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
96	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
97	BRIGHTNESS TEMP	0.2191500000E+03	K	
98	TOVS/ATOVs/AVHR	0.3800000000E+02	CODE TABLE	2150
99	LOG_10 OF (TEMP	0.2281260800E+01	LOG (1/M)	
100	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
101	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
102	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
103	BRIGHTNESS TEMP	0.2289300000E+03	K	
104	TOVS/ATOVs/AVHR	0.3900000000E+02	CODE TABLE	2150
105	LOG_10 OF (TEMP	0.2281260800E+01	LOG (1/M)	
106	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
107	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
108	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
109	BRIGHTNESS TEMP	0.2407500000E+03	K	
110	TOVS/ATOVs/AVHR	0.4000000000E+02	CODE TABLE	2150
111	LOG_10 OF (TEMP	0.2281260800E+01	LOG (1/M)	
112	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	

113	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
114	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
115	BRIGHTNESS TEMP	0.2518600000E+03	K	
116	TOVS/ATOVS/AVHR	0.4100000000E+02	CODE TABLE	2150
117	LOG <sub>10</sub> OF (TEMP	0.2281260800E+01	LOG (1/M)	
118	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
119	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
120	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
121	BRIGHTNESS TEMP	MISSING	K	
122	TOVS/ATOVS/AVHR	0.4200000000E+02	CODE TABLE	2150
123	LOG <sub>10</sub> OF (TEMP	0.2472569440E+01	LOG (1/M)	
124	BANDWIDTH CORRE	0.0000000000E+00	NUMERIC	
125	BANDWIDTH CORRE	0.1000000000E+01	NUMERIC	
126	CHANNEL QUALITY	0.0000000000E+00	FLAG TABLE	33032
127	BRIGHTNESS TEMP	0.2603200000E+03	K	
128	TOVS/ATOVS/AVHR	MISSING	CODE TABLE	2150
129	LOG <sub>10</sub> OF (TEMP	MISSING	LOG (1/M)	
130	BANDWIDTH CORRE	MISSING	NUMERIC	
131	BANDWIDTH CORRE	MISSING	NUMERIC	
132	CHANNEL QUALITY	MISSING	FLAG TABLE	33032
133	BRIGHTNESS TEMP	MISSING	K	
134	TOVS/ATOVS/AVHR	MISSING	CODE TABLE	2150
135	LOG <sub>10</sub> OF (TEMP	MISSING	LOG (1/M)	
136	BANDWIDTH CORRE	MISSING	NUMERIC	
137	BANDWIDTH CORRE	MISSING	NUMERIC	
138	CHANNEL QUALITY	MISSING	FLAG TABLE	33032
139	BRIGHTNESS TEMP	MISSING	K	
140	TOVS/ATOVS/AVHR	MISSING	CODE TABLE	2150
141	LOG <sub>10</sub> OF (TEMP	MISSING	LOG (1/M)	
142	BANDWIDTH CORRE	MISSING	NUMERIC	
143	BANDWIDTH CORRE	MISSING	NUMERIC	
144	CHANNEL QUALITY	MISSING	FLAG TABLE	33032
145	BRIGHTNESS TEMP	MISSING	K	
146	TOVS/ATOVS/AVHR	MISSING	CODE TABLE	2150
147	LOG <sub>10</sub> OF (TEMP	MISSING	LOG (1/M)	
148	BANDWIDTH CORRE	MISSING	NUMERIC	
149	BANDWIDTH CORRE	MISSING	NUMERIC	
150	CHANNEL QUALITY	MISSING	FLAG TABLE	33032
151	BRIGHTNESS TEMP	MISSING	K	
152	TOVS/ATOVS/AVHR	MISSING	CODE TABLE	2150
153	ALBEDO-RADIANCE	MISSING	W/M*2	
154	ALBEDO-RADIANCE	MISSING	M	
155	CHANNEL QUALITY	MISSING	FLAG TABLE	33032
156	CHANNEL RADIANCE	MISSING	(W/M*2) * (1/SR) * CM	

### 3.32 ERS1/2 Wave scatterometer

RDB type 12, subtype 121

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                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 602
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 12
    BUFR MESSAGE SUBTYPE              121
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               14
    HOUR                              3
    MINUTE                            3
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    12
    RDB DATA SUBTYPE                 121
    YEAR                             2001
    MONTH                             2
    DAY                               14
    HOUR                              3
    MINUTE                            3
    SECOND                             17
    LATITUDE 1                        13.13
    LONGITUDE 1                       -67.56
    LATITUDE 2                        13.13
    LONGITUDE 2                       -67.56
    NUMBER OF OBSERVATIONS             1
    IDENTIFIER                         2
    TOTAL BUFR MESSAGE LENGTH          602
    DAY (RDB INSERTION)                14
    HOUR (RDB INSERTION)                3
    MINUTE (RDB INSERTION)              58
    SECOND (RDB INSERTION)              1
    DAY (MDB ARRIVAL)                  14
    HOUR (MDB ARRIVAL)                  3
    MINUTE (MDB ARRIVAL)                53
    SECOND (MDB ARRIVAL)                40
    CORRECTION NUMBER                  0
    PART OF MESSAGE                     1
    CORRECTION NUMBER                  0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                     0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                     0
    QUALITY CONTROL % CONF              70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)        54
    RESERVED                           0
    NUMBER OF DATA SUBSETS              1
    FLAG (DATA TYPE/DATA COMPRESSION)  128

    DATA DESCRIPTORS (UNEXPANDED)
```



1 301047  
2 301048  
3 015015  
4 029002  
5 021076  
6 106012  
7 201129  
8 006030  
9 201000  
10 102012  
11 005030  
12 021075  
13 021066  
14 008060  
15 008022  
16 008060  
17 008022  
18 025014  
19 022101  
20 022097  
21 022098  
22 022099  
23 022100

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 025060 SOFTWARE IDENTIFICATION  
3 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
4 001034 IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE  
5 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM  
6 004001 YEAR  
7 004002 MONTH  
8 004003 DAY  
9 004004 HOUR  
10 004005 MINUTE  
11 004006 SECOND  
12 027031 IN DIRECTION OF 0 DEGREES LONGITUDE, DISTANCE FROM THE EARTH'S C  
13 028031 IN DIRECTION OF 90 DEGREES EAST, DISTANCE FROM THE EARTH'S CENTRE  
14 010031 IN DIRECTION OF THE NORTH POLE , DISTANCE FROM THE EARTH CENTRE  
15 001041 ABSOLUTE PLATFORM VELOCITY - FIRST COMPONENT  
16 001042 ABSOLUTE PLATFORM VELOCITY - SECOND COMPONENT  
17 001043 ABSOLUTE PLATFORM VELOCITY - THIRD COMPONENT  
18 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
19 004001 YEAR  
20 004002 MONTH  
21 004003 DAY  
22 004004 HOUR  
23 004005 MINUTE  
24 004006 SECOND  
25 005002 LATITUDE (COARSE ACCURACY)  
26 006002 LONGITUDE (COARSE ACCURACY)  
27 002104 ANTENNA POLARISATION  
28 002121 MEAN FREQUENCY  
29 002113 NUMBER OF AZIMUTH LOOKS  
30 002026 CROSS TRACK RESOLUTION  
31 002027 ALONG TRACK RESOLUTION  
32 002111 RADAR INCIDENCE ANGLE  
33 002140 SATELLITE RADAR BEAM AZIMUTH ANGLE  
34 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM  
35 007001 HEIGHT OF STATION  
36 025010 CLUTTER TREATMENT  
37 021064 CLUTTER NOISE ESTIMATE  
38 015015 MAXIMUM IMAGE SPECTRAL COMPONENT BEFORE NORMALIZATION  
39 029002 CO-ORDINATE GRID TYPE  
40 021076 REPRESENTATION OF INTENSITIES  
41 006030 WAVENUMBER (SPECTRAL)  
42 005030 DIRECTION (SPECTRAL)  
43 021075 SPECTRAL INTENSITY  
44 005030 DIRECTION (SPECTRAL)  
45 021075 SPECTRAL INTENSITY  
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340	021075	SPECTRAL INTENSITY
341	021066	WAVE SCATTEROMETER PRODUCT CONFIDENCE
342	008060	SAMPLE SCANNING MODE SIGNIFICANCE
343	008022	TOTAL NUMBER(WITH RESPECT TO ACCUMULATION OR AVERAGE)
344	008060	SAMPLE SCANNING MODE SIGNIFICANCE

```
345 008022 TOTAL NUMBER(WITH RESPECT TO ACCUMULATION OR AVERAGE)
346 025014 AZIMUTH CLUTTER CUT-OFF
347 022101 TOTAL ENERGY (WAVELENGTH > 731 M) AT LOW WAVE NUMBERS
348 022097 MEAN WAVELENGTH > 731 M OF IMAGE SPECTRUM AT LOW WAVE NUMBERS
349 022098 WAVELENGTH SPREAD (WAVELENGTH > 731 M) AT LOW WAVE NUMBERS
350 022099 MEAN DIRECTION AT LOW WAVE NUMBERS (WAVELENGTH > 731 M)
351 022100 DIRECTION SPREAD AT LOW WAVE NUMBERS (WAVELENGTH > 731 M)
```

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STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
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```
1 SATELLITE IDENT      0.2000000000E+01 CODE TABLE  1007
2 SOFTWARE IDENT      0.8070000000E+03 NUMERIC
3 IDENTIFICATION      0.2100000000E+03 CODE TABLE  1033
4 IDENTIFICATION      0.3000000000E+01 CODE TABLE  1034
5 DIRECTION OF MO     0.3470000000E+03 DEGREE TRUE
6 YEAR               0.2001000000E+04 YEAR
7 MONTH             0.2000000000E+01 MONTH
8 DAY               0.1400000000E+02 DAY
9 HOUR              0.2000000000E+01 HOUR
10 MINUTE            0.5900000000E+02 MINUTE
11 SECOND            0.4595800000E+02 SECOND
12 IN DIRECTION OF   0.2753743040E+07 M
13 IN DIRECTION OF  -0.6615605120E+07 M
14 IN DIRECTION OF   0.9200000000E+00 m
15 ABSOLUTE PLATFO  -0.1508350560E+04 M/S
16 ABSOLUTE PLATFO  -0.6186402400E+03 M/S
17 ABSOLUTE PLATFO   0.7376936320E+04 M/S
18 SATELLITE INSTR    0.1600000000E+02 FLAG TABLE  2021
19 YEAR               0.2001000000E+04 YEAR
20 MONTH             0.2000000000E+01 MONTH
21 DAY               0.1400000000E+02 DAY
22 HOUR              0.3000000000E+01 HOUR
23 MINUTE            0.3000000000E+01 MINUTE
24 SECOND            0.1726500000E+02 SECOND
25 LATITUDE (COARS   0.1313000000E+02 DEGREE
26 LONGITUDE (COAR  -0.6756000000E+02 DEGREE
27 ANTENNA POLARIS   0.1000000000E+01 CODE TABLE  2104
28 MEAN FREQUENCY     0.5300000000E+10 Hz
29 NUMBER OF AZIMU    0.3000000000E+01 NUMERIC
30 CROSS TRACK RES    0.2000000000E+02 M
31 ALONG TRACK RES    0.1617000000E+02 M
32 RADAR INCIDENCE    0.2290000000E+02 DEGREE
33 SATELLITE RADAR    0.2700000000E+03 DEGREE
34 SPEED OF MOTION    0.6720000000E+04 M/S
35 HEIGHT OF STATI    0.7868000000E+06 M
36 CLUTTER TREATME    0.0000000000E+00 CODE TABLE  25010
37 CLUTTER NOISE E    0.2000000000E+01 NUMERIC
38 MAXIMUM IMAGE S    0.3087900000E+05 NUMERIC
39 CO-ORDINATE GRI    0.0000000000E+00 CODE TABLE  29002
40 REPRESENTATION     0.2000000000E+01 CODE TABLE  21076
41 WAVENUMBER (SPE    0.9549000000E-01 RAD/M
42 DIRECTION (SPEC    0.8000000000E+01 DEGREE
43 SPECTRAL INTENS    0.1850000000E+03 NUMERIC
44 DIRECTION (SPEC    0.2300000000E+02 DEGREE
45 SPECTRAL INTENS    0.1820000000E+03 NUMERIC
46 DIRECTION (SPEC    0.3800000000E+02 DEGREE
47 SPECTRAL INTENS    0.1880000000E+03 NUMERIC
48 DIRECTION (SPEC    0.5300000000E+02 DEGREE
49 SPECTRAL INTENS    0.1810000000E+03 NUMERIC
50 DIRECTION (SPEC    0.6800000000E+02 DEGREE
51 SPECTRAL INTENS    0.1820000000E+03 NUMERIC
52 DIRECTION (SPEC    0.8300000000E+02 DEGREE
53 SPECTRAL INTENS    0.1830000000E+03 NUMERIC
54 DIRECTION (SPEC    0.9800000000E+02 DEGREE
55 SPECTRAL INTENS    0.1890000000E+03 NUMERIC
56 DIRECTION (SPEC    0.1130000000E+03 DEGREE
57 SPECTRAL INTENS    0.1850000000E+03 NUMERIC
58 DIRECTION (SPEC    0.1280000000E+03 DEGREE
59 SPECTRAL INTENS    0.1810000000E+03 NUMERIC
60 DIRECTION (SPEC    0.1430000000E+03 DEGREE
61 SPECTRAL INTENS    0.1820000000E+03 NUMERIC
62 DIRECTION (SPEC    0.1580000000E+03 DEGREE
63 SPECTRAL INTENS    0.1900000000E+03 NUMERIC
64 DIRECTION (SPEC    0.1730000000E+03 DEGREE
65 SPECTRAL INTENS    0.1880000000E+03 NUMERIC
66 WAVENUMBER (SPE    0.7746000000E-01 RAD/M
67 DIRECTION (SPEC    0.8000000000E+01 DEGREE
68 SPECTRAL INTENS    0.1940000000E+03 NUMERIC
69 DIRECTION (SPEC    0.2300000000E+02 DEGREE
70 SPECTRAL INTENS    0.1920000000E+03 NUMERIC
71 DIRECTION (SPEC    0.3800000000E+02 DEGREE
72 SPECTRAL INTENS    0.1900000000E+03 NUMERIC
73 DIRECTION (SPEC    0.5300000000E+02 DEGREE
74 SPECTRAL INTENS    0.1870000000E+03 NUMERIC
75 DIRECTION (SPEC    0.6800000000E+02 DEGREE
76 SPECTRAL INTENS    0.1790000000E+03 NUMERIC
77 DIRECTION (SPEC    0.8300000000E+02 DEGREE
78 SPECTRAL INTENS    0.1880000000E+03 NUMERIC
79 DIRECTION (SPEC    0.9800000000E+02 DEGREE
80 SPECTRAL INTENS    0.1900000000E+03 NUMERIC
81 DIRECTION (SPEC    0.1130000000E+03 DEGREE
82 SPECTRAL INTENS    0.1830000000E+03 NUMERIC
```

83	DIRECTION (SPEC	0.1280000000E+03	DEGREE
84	SPECTRAL INTENS	0.1890000000E+03	NUMERIC
85	DIRECTION (SPEC	0.1430000000E+03	DEGREE
86	SPECTRAL INTENS	0.1900000000E+03	NUMERIC
87	DIRECTION (SPEC	0.1580000000E+03	DEGREE
88	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
89	DIRECTION (SPEC	0.1730000000E+03	DEGREE
90	SPECTRAL INTENS	0.1890000000E+03	NUMERIC
91	WAVENUMBER (SPE	0.6283000000E-01	RAD/M
92	DIRECTION (SPEC	0.8000000000E+01	DEGREE
93	SPECTRAL INTENS	0.1910000000E+03	NUMERIC
94	DIRECTION (SPEC	0.2300000000E+02	DEGREE
95	SPECTRAL INTENS	0.1940000000E+03	NUMERIC
96	DIRECTION (SPEC	0.3800000000E+02	DEGREE
97	SPECTRAL INTENS	0.1880000000E+03	NUMERIC
98	DIRECTION (SPEC	0.5300000000E+02	DEGREE
99	SPECTRAL INTENS	0.1970000000E+03	NUMERIC
100	DIRECTION (SPEC	0.6800000000E+02	DEGREE
101	SPECTRAL INTENS	0.1900000000E+03	NUMERIC
102	DIRECTION (SPEC	0.8300000000E+02	DEGREE
103	SPECTRAL INTENS	0.1970000000E+03	NUMERIC
104	DIRECTION (SPEC	0.9800000000E+02	DEGREE
105	SPECTRAL INTENS	0.2030000000E+03	NUMERIC
106	DIRECTION (SPEC	0.1130000000E+03	DEGREE
107	SPECTRAL INTENS	0.1930000000E+03	NUMERIC
108	DIRECTION (SPEC	0.1280000000E+03	DEGREE
109	SPECTRAL INTENS	0.1950000000E+03	NUMERIC
110	DIRECTION (SPEC	0.1430000000E+03	DEGREE
111	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
112	DIRECTION (SPEC	0.1580000000E+03	DEGREE
113	SPECTRAL INTENS	0.1950000000E+03	NUMERIC
114	DIRECTION (SPEC	0.1730000000E+03	DEGREE
115	SPECTRAL INTENS	0.1940000000E+03	NUMERIC
116	WAVENUMBER (SPE	0.5097000000E-01	RAD/M
117	DIRECTION (SPEC	0.8000000000E+01	DEGREE
118	SPECTRAL INTENS	0.1930000000E+03	NUMERIC
119	DIRECTION (SPEC	0.2300000000E+02	DEGREE
120	SPECTRAL INTENS	0.2010000000E+03	NUMERIC
121	DIRECTION (SPEC	0.3800000000E+02	DEGREE
122	SPECTRAL INTENS	0.1990000000E+03	NUMERIC
123	DIRECTION (SPEC	0.5300000000E+02	DEGREE
124	SPECTRAL INTENS	0.2030000000E+03	NUMERIC
125	DIRECTION (SPEC	0.6800000000E+02	DEGREE
126	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
127	DIRECTION (SPEC	0.8300000000E+02	DEGREE
128	SPECTRAL INTENS	0.1940000000E+03	NUMERIC
129	DIRECTION (SPEC	0.9800000000E+02	DEGREE
130	SPECTRAL INTENS	0.2020000000E+03	NUMERIC
131	DIRECTION (SPEC	0.1130000000E+03	DEGREE
132	SPECTRAL INTENS	0.2050000000E+03	NUMERIC
133	DIRECTION (SPEC	0.1280000000E+03	DEGREE
134	SPECTRAL INTENS	0.1830000000E+03	NUMERIC
135	DIRECTION (SPEC	0.1430000000E+03	DEGREE
136	SPECTRAL INTENS	0.2000000000E+03	NUMERIC
137	DIRECTION (SPEC	0.1580000000E+03	DEGREE
138	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
139	DIRECTION (SPEC	0.1730000000E+03	DEGREE
140	SPECTRAL INTENS	0.1950000000E+03	NUMERIC
141	WAVENUMBER (SPE	0.4134000000E-01	RAD/M
142	DIRECTION (SPEC	0.8000000000E+01	DEGREE
143	SPECTRAL INTENS	0.1970000000E+03	NUMERIC
144	DIRECTION (SPEC	0.2300000000E+02	DEGREE
145	SPECTRAL INTENS	0.1940000000E+03	NUMERIC
146	DIRECTION (SPEC	0.3800000000E+02	DEGREE
147	SPECTRAL INTENS	0.2080000000E+03	NUMERIC
148	DIRECTION (SPEC	0.5300000000E+02	DEGREE
149	SPECTRAL INTENS	0.2020000000E+03	NUMERIC
150	DIRECTION (SPEC	0.6800000000E+02	DEGREE
151	SPECTRAL INTENS	0.2070000000E+03	NUMERIC
152	DIRECTION (SPEC	0.8300000000E+02	DEGREE
153	SPECTRAL INTENS	0.2010000000E+03	NUMERIC
154	DIRECTION (SPEC	0.9800000000E+02	DEGREE
155	SPECTRAL INTENS	0.1940000000E+03	NUMERIC
156	DIRECTION (SPEC	0.1130000000E+03	DEGREE
157	SPECTRAL INTENS	0.2010000000E+03	NUMERIC
158	DIRECTION (SPEC	0.1280000000E+03	DEGREE
159	SPECTRAL INTENS	0.1970000000E+03	NUMERIC
160	DIRECTION (SPEC	0.1430000000E+03	DEGREE
161	SPECTRAL INTENS	0.1980000000E+03	NUMERIC
162	DIRECTION (SPEC	0.1580000000E+03	DEGREE
163	SPECTRAL INTENS	0.1900000000E+03	NUMERIC
164	DIRECTION (SPEC	0.1730000000E+03	DEGREE
165	SPECTRAL INTENS	0.2020000000E+03	NUMERIC
166	WAVENUMBER (SPE	0.3353000000E-01	RAD/M
167	DIRECTION (SPEC	0.8000000000E+01	DEGREE
168	SPECTRAL INTENS	0.2060000000E+03	NUMERIC
169	DIRECTION (SPEC	0.2300000000E+02	DEGREE
170	SPECTRAL INTENS	0.1930000000E+03	NUMERIC
171	DIRECTION (SPEC	0.3800000000E+02	DEGREE
172	SPECTRAL INTENS	0.2160000000E+03	NUMERIC
173	DIRECTION (SPEC	0.5300000000E+02	DEGREE
174	SPECTRAL INTENS	0.1900000000E+03	NUMERIC
175	DIRECTION (SPEC	0.6800000000E+02	DEGREE

176	SPECTRAL INTENS	0.2030000000E+03	NUMERIC
177	DIRECTION (SPEC	0.8300000000E+02	DEGREE
178	SPECTRAL INTENS	0.2110000000E+03	NUMERIC
179	DIRECTION (SPEC	0.9800000000E+02	DEGREE
180	SPECTRAL INTENS	0.2060000000E+03	NUMERIC
181	DIRECTION (SPEC	0.1130000000E+03	DEGREE
182	SPECTRAL INTENS	0.2010000000E+03	NUMERIC
183	DIRECTION (SPEC	0.1280000000E+03	DEGREE
184	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
185	DIRECTION (SPEC	0.1430000000E+03	DEGREE
186	SPECTRAL INTENS	0.2180000000E+03	NUMERIC
187	DIRECTION (SPEC	0.1580000000E+03	DEGREE
188	SPECTRAL INTENS	0.1960000000E+03	NUMERIC
189	DIRECTION (SPEC	0.1730000000E+03	DEGREE
190	SPECTRAL INTENS	0.2110000000E+03	NUMERIC
191	WAVENUMBER (SPE	0.2720000000E-01	RAD/M
192	DIRECTION (SPEC	0.8000000000E+01	DEGREE
193	SPECTRAL INTENS	0.2220000000E+03	NUMERIC
194	DIRECTION (SPEC	0.2300000000E+02	DEGREE
195	SPECTRAL INTENS	0.2010000000E+03	NUMERIC
196	DIRECTION (SPEC	0.3800000000E+02	DEGREE
197	SPECTRAL INTENS	0.2090000000E+03	NUMERIC
198	DIRECTION (SPEC	0.5300000000E+02	DEGREE
199	SPECTRAL INTENS	0.2060000000E+03	NUMERIC
200	DIRECTION (SPEC	0.6800000000E+02	DEGREE
201	SPECTRAL INTENS	0.2150000000E+03	NUMERIC
202	DIRECTION (SPEC	0.8300000000E+02	DEGREE
203	SPECTRAL INTENS	0.2090000000E+03	NUMERIC
204	DIRECTION (SPEC	0.9800000000E+02	DEGREE
205	SPECTRAL INTENS	0.2260000000E+03	NUMERIC
206	DIRECTION (SPEC	0.1130000000E+03	DEGREE
207	SPECTRAL INTENS	0.2040000000E+03	NUMERIC
208	DIRECTION (SPEC	0.1280000000E+03	DEGREE
209	SPECTRAL INTENS	0.2200000000E+03	NUMERIC
210	DIRECTION (SPEC	0.1430000000E+03	DEGREE
211	SPECTRAL INTENS	0.2140000000E+03	NUMERIC
212	DIRECTION (SPEC	0.1580000000E+03	DEGREE
213	SPECTRAL INTENS	0.2050000000E+03	NUMERIC
214	DIRECTION (SPEC	0.1730000000E+03	DEGREE
215	SPECTRAL INTENS	0.2110000000E+03	NUMERIC
216	WAVENUMBER (SPE	0.2206000000E-01	RAD/M
217	DIRECTION (SPEC	0.8000000000E+01	DEGREE
218	SPECTRAL INTENS	0.2160000000E+03	NUMERIC
219	DIRECTION (SPEC	0.2300000000E+02	DEGREE
220	SPECTRAL INTENS	0.2220000000E+03	NUMERIC
221	DIRECTION (SPEC	0.3800000000E+02	DEGREE
222	SPECTRAL INTENS	0.1980000000E+03	NUMERIC
223	DIRECTION (SPEC	0.5300000000E+02	DEGREE
224	SPECTRAL INTENS	0.2210000000E+03	NUMERIC
225	DIRECTION (SPEC	0.6800000000E+02	DEGREE
226	SPECTRAL INTENS	0.2290000000E+03	NUMERIC
227	DIRECTION (SPEC	0.8300000000E+02	DEGREE
228	SPECTRAL INTENS	0.1930000000E+03	NUMERIC
229	DIRECTION (SPEC	0.9800000000E+02	DEGREE
230	SPECTRAL INTENS	0.1890000000E+03	NUMERIC
231	DIRECTION (SPEC	0.1130000000E+03	DEGREE
232	SPECTRAL INTENS	0.1930000000E+03	NUMERIC
233	DIRECTION (SPEC	0.1280000000E+03	DEGREE
234	SPECTRAL INTENS	0.2270000000E+03	NUMERIC
235	DIRECTION (SPEC	0.1430000000E+03	DEGREE
236	SPECTRAL INTENS	0.2260000000E+03	NUMERIC
237	DIRECTION (SPEC	0.1580000000E+03	DEGREE
238	SPECTRAL INTENS	0.2350000000E+03	NUMERIC
239	DIRECTION (SPEC	0.1730000000E+03	DEGREE
240	SPECTRAL INTENS	0.2140000000E+03	NUMERIC
241	WAVENUMBER (SPE	0.1789000000E-01	RAD/M
242	DIRECTION (SPEC	0.8000000000E+01	DEGREE
243	SPECTRAL INTENS	0.2130000000E+03	NUMERIC
244	DIRECTION (SPEC	0.2300000000E+02	DEGREE
245	SPECTRAL INTENS	0.2160000000E+03	NUMERIC
246	DIRECTION (SPEC	0.3800000000E+02	DEGREE
247	SPECTRAL INTENS	0.2350000000E+03	NUMERIC
248	DIRECTION (SPEC	0.5300000000E+02	DEGREE
249	SPECTRAL INTENS	0.2180000000E+03	NUMERIC
250	DIRECTION (SPEC	0.6800000000E+02	DEGREE
251	SPECTRAL INTENS	0.2160000000E+03	NUMERIC
252	DIRECTION (SPEC	0.8300000000E+02	DEGREE
253	SPECTRAL INTENS	0.1880000000E+03	NUMERIC
254	DIRECTION (SPEC	0.9800000000E+02	DEGREE
255	SPECTRAL INTENS	0.2080000000E+03	NUMERIC
256	DIRECTION (SPEC	0.1130000000E+03	DEGREE
257	SPECTRAL INTENS	0.2210000000E+03	NUMERIC
258	DIRECTION (SPEC	0.1280000000E+03	DEGREE
259	SPECTRAL INTENS	0.2280000000E+03	NUMERIC
260	DIRECTION (SPEC	0.1430000000E+03	DEGREE
261	SPECTRAL INTENS	0.2210000000E+03	NUMERIC
262	DIRECTION (SPEC	0.1580000000E+03	DEGREE
263	SPECTRAL INTENS	0.2100000000E+03	NUMERIC
264	DIRECTION (SPEC	0.1730000000E+03	DEGREE
265	SPECTRAL INTENS	0.2090000000E+03	NUMERIC
266	WAVENUMBER (SPE	0.1451000000E-01	RAD/M
267	DIRECTION (SPEC	0.8000000000E+01	DEGREE
268	SPECTRAL INTENS	0.2290000000E+03	NUMERIC

269	DIRECTION (SPEC	0.2300000000E+02	DEGREE	
270	SPECTRAL INTENS	0.2070000000E+03	NUMERIC	
271	DIRECTION (SPEC	0.3800000000E+02	DEGREE	
272	SPECTRAL INTENS	0.2380000000E+03	NUMERIC	
273	DIRECTION (SPEC	0.5300000000E+02	DEGREE	
274	SPECTRAL INTENS	0.1980000000E+03	NUMERIC	
275	DIRECTION (SPEC	0.6800000000E+02	DEGREE	
276	SPECTRAL INTENS	0.2040000000E+03	NUMERIC	
277	DIRECTION (SPEC	0.8300000000E+02	DEGREE	
278	SPECTRAL INTENS	0.1860000000E+03	NUMERIC	
279	DIRECTION (SPEC	0.9800000000E+02	DEGREE	
280	SPECTRAL INTENS	0.2020000000E+03	NUMERIC	
281	DIRECTION (SPEC	0.1130000000E+03	DEGREE	
282	SPECTRAL INTENS	0.2170000000E+03	NUMERIC	
283	DIRECTION (SPEC	0.1280000000E+03	DEGREE	
284	SPECTRAL INTENS	0.2310000000E+03	NUMERIC	
285	DIRECTION (SPEC	0.1430000000E+03	DEGREE	
286	SPECTRAL INTENS	0.2140000000E+03	NUMERIC	
287	DIRECTION (SPEC	0.1580000000E+03	DEGREE	
288	SPECTRAL INTENS	0.1880000000E+03	NUMERIC	
289	DIRECTION (SPEC	0.1730000000E+03	DEGREE	
290	SPECTRAL INTENS	0.2250000000E+03	NUMERIC	
291	WAVENUMBER (SPE	0.1177000000E-01	RAD/M	
292	DIRECTION (SPEC	0.8000000000E+01	DEGREE	
293	SPECTRAL INTENS	0.2170000000E+03	NUMERIC	
294	DIRECTION (SPEC	0.2300000000E+02	DEGREE	
295	SPECTRAL INTENS	0.2330000000E+03	NUMERIC	
296	DIRECTION (SPEC	0.3800000000E+02	DEGREE	
297	SPECTRAL INTENS	0.2090000000E+03	NUMERIC	
298	DIRECTION (SPEC	0.5300000000E+02	DEGREE	
299	SPECTRAL INTENS	0.2200000000E+03	NUMERIC	
300	DIRECTION (SPEC	0.6800000000E+02	DEGREE	
301	SPECTRAL INTENS	0.2040000000E+03	NUMERIC	
302	DIRECTION (SPEC	0.8300000000E+02	DEGREE	
303	SPECTRAL INTENS	0.2000000000E+03	NUMERIC	
304	DIRECTION (SPEC	0.9800000000E+02	DEGREE	
305	SPECTRAL INTENS	0.2100000000E+03	NUMERIC	
306	DIRECTION (SPEC	0.1130000000E+03	DEGREE	
307	SPECTRAL INTENS	0.2400000000E+03	NUMERIC	
308	DIRECTION (SPEC	0.1280000000E+03	DEGREE	
309	SPECTRAL INTENS	0.2020000000E+03	NUMERIC	
310	DIRECTION (SPEC	0.1430000000E+03	DEGREE	
311	SPECTRAL INTENS	0.1950000000E+03	NUMERIC	
312	DIRECTION (SPEC	0.1580000000E+03	DEGREE	
313	SPECTRAL INTENS	0.2060000000E+03	NUMERIC	
314	DIRECTION (SPEC	0.1730000000E+03	DEGREE	
315	SPECTRAL INTENS	0.2250000000E+03	NUMERIC	
316	WAVENUMBER (SPE	0.9550000000E-02	RAD/M	
317	DIRECTION (SPEC	0.8000000000E+01	DEGREE	
318	SPECTRAL INTENS	0.2460000000E+03	NUMERIC	
319	DIRECTION (SPEC	0.2300000000E+02	DEGREE	
320	SPECTRAL INTENS	0.2270000000E+03	NUMERIC	
321	DIRECTION (SPEC	0.3800000000E+02	DEGREE	
322	SPECTRAL INTENS	0.2270000000E+03	NUMERIC	
323	DIRECTION (SPEC	0.5300000000E+02	DEGREE	
324	SPECTRAL INTENS	0.2540000000E+03	NUMERIC	
325	DIRECTION (SPEC	0.6800000000E+02	DEGREE	
326	SPECTRAL INTENS	0.2190000000E+03	NUMERIC	
327	DIRECTION (SPEC	0.8300000000E+02	DEGREE	
328	SPECTRAL INTENS	0.2020000000E+03	NUMERIC	
329	DIRECTION (SPEC	0.9800000000E+02	DEGREE	
330	SPECTRAL INTENS	0.2170000000E+03	NUMERIC	
331	DIRECTION (SPEC	0.1130000000E+03	DEGREE	
332	SPECTRAL INTENS	0.1950000000E+03	NUMERIC	
333	DIRECTION (SPEC	0.1280000000E+03	DEGREE	
334	SPECTRAL INTENS	0.2430000000E+03	NUMERIC	
335	DIRECTION (SPEC	0.1430000000E+03	DEGREE	
336	SPECTRAL INTENS	0.2310000000E+03	NUMERIC	
337	DIRECTION (SPEC	0.1580000000E+03	DEGREE	
338	SPECTRAL INTENS	0.1730000000E+03	NUMERIC	
339	DIRECTION (SPEC	0.1730000000E+03	DEGREE	
340	SPECTRAL INTENS	0.2280000000E+03	NUMERIC	
341	WAVE SCATTEROME	0.1088000000E+04	FLAG TABLE	21066
342	SAMPLE SCANNING	0.1000000000E+01	CODE TABLE	8060
343	TOTAL NUMBER(WI	0.5120000000E+03	NUMERIC	
344	SAMPLE SCANNING	0.2000000000E+01	CODE TABLE	8060
345	TOTAL NUMBER(WI	0.3050000000E+03	NUMERIC	
346	AZIMUTH CLUTTER	0.2500000000E+03	NUMERIC	
347	TOTAL ENERGY (W	0.1085428700E+08	NUMERIC	
348	MEAN WAVELENGTH	0.4586000000E+04	M	
349	WAVELENGTH SPRE	0.2010000000E+04	M	
350	MEAN DIRECTION	0.2690000000E+03	DEGREE TRUE	
351	DIRECTION SPREA	0.4200000000E+02	DEGREE	



### 3.33 ERS1/2 Radar Altimeter

RDB type 12, subtype 123

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                                ECMWF

                                BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 1894
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 12
    BUFR MESSAGE SUBTYPE              123
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                              1
    MONTH                             2
    DAY                               14
    HOUR                              3
    MINUTE                            2
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                 123
    YEAR                             2001
    MONTH                             2
    DAY                               14
    HOUR                              3
    MINUTE                            2
    SECOND                            28
    LATITUDE 1                        9.67
    LONGITUDE 1                       -70.55
    LATITUDE 2                       14.14
    LONGITUDE 2                       -69.54
    NUMBER OF OBSERVATIONS             77
    IDENTIFIER                         2
    TOTAL BUFR MESSAGE LENGTH         1894
    DAY (RDB INSERTION)               14
    HOUR (RDB INSERTION)               3
    MINUTE (RDB INSERTION)            58
    SECOND (RDB INSERTION)             3
    DAY (MDB ARRIVAL)                 14
    HOUR (MDB ARRIVAL)                 3
    MINUTE (MDB ARRIVAL)              53
    SECOND (MDB ARRIVAL)              40
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      10
    RESERVED                          0
    NUMBER OF DATA SUBSETS           77
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)

```

1 312210

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM
3 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING
4 004001 YEAR
5 004002 MONTH
6 004003 DAY
7 004004 HOUR
8 004005 MINUTE
9 004006 SECOND
10 005002 LATITUDE (COARSE ACCURACY)
11 006002 LONGITUDE (COARSE ACCURACY)
12 008022 TOTAL NUMBER(WITH RESPECT TO ACCUMULATION OR AVERAGE)
13 011012 WIND SPEED AT 10 M
14 011050 STANDARD DEVIATION OF HORIZONTALWIND SPEED
15 022021 HEIGHT OF WAVES
16 022243 STANDARD DEVIATION SIGNIFICANT WAVE HEIGHT
17 007001 HEIGHT OF STATION
18 010050 STANDARD DEVIATION ALTITUDE
19 021198 URA PRODUCT CONFIDENCE
20 021201 PEAKINESS
21 021202 ALTIMETER CALIBRATION STATUS
22 021203 ALTIMETER INSTRUMENT MODE
23 021207 ALTITUDE CORRECTION (IONOSPHERE)
24 021208 ALTITUDE CORRECTION (DRY TROPOSPHERE)
25 021209 LTITUDE CORRECTION (WET TROPOSPHERE)
26 021210 ALTITUDE CORRECTION (CALIBRATION CONSTANT)
27 021211 OPEN LOOP CORRECTION (HTL)
28 021212 OPEN LOOP CORRECTION (AGC)
29 021192 RADAR BACK SCATTER
30 015202 INTEGRATED ELECTRON DENSITY
31 004001 YEAR
32 004002 MONTH
33 004003 DAY
34 004004 HOUR
35 004005 MINUTE
36 004006 SECOND
37 005217 LOCATION OF PLATFORM, X
38 006217 LOCATION OF PLATFORM, Y
39 007217 LOCATION OF PLATFORM, Z
40 001208 VELOCITY OF PLATFORM, X
41 001209 VELOCITY OF PLATFORM, Y
42 001210 VELOCITY OF PLATFORM, Z
```

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

1 SATELLITE IDENT	0.2000000000E+01	CODE TABLE	1007
2 DIRECTION OF MO	0.3470000000E+03	DEGREE TRUE	
3 SATELLITE INSTR	0.6400000000E+02	FLAG TABLE	2021
4 YEAR	0.2001000000E+04	YEAR	
5 MONTH	0.2000000000E+01	MONTH	
6 DAY	0.1400000000E+02	DAY	
7 HOUR	0.3000000000E+01	HOUR	
8 MINUTE	0.2000000000E+01	MINUTE	
9 SECOND	0.2892400000E+02	SECOND	
10 LATITUDE (COARS	0.9670000000E+01	DEGREE	
11 LONGITUDE (COAR	-0.6954000000E+02	DEGREE	
12 TOTAL NUMBER(WI	0.0000000000E+00	NUMERIC	
13 WIND SPEED AT 1	0.0000000000E+00	M/S	
14 STANDARD DEVIAT	0.0000000000E+00	M/S	
15 HEIGHT OF WAVES	0.0000000000E+00	M	
16 STANDARD DEVIAT	0.0000000000E+00	M	
17 HEIGHT OF STATI	0.0000000000E+00	M	
18 STANDARD DEVIAT	0.0000000000E+00	M	
19 URA PRODUCT CON	0.0000000000E+00	FLAG TABLE	21198
20 PEAKINESS	0.0000000000E+00	NUMERIC	
21 ALTIMETER CALIB	0.0000000000E+00	FLAG TABLE	21202
22 ALTIMETER INSTR	0.6400000000E+02	FLAG TABLE	21203
23 ALTITUDE CORREC	0.0000000000E+00	M	
24 ALTITUDE CORREC	0.0000000000E+00	M	
25 LTITUDE CORRECT		MISSING M	
26 ALTITUDE CORREC	0.0000000000E+00	M	
27 OPEN LOOP CORRE	0.0000000000E+00	M	
28 OPEN LOOP CORRE	0.0000000000E+00	dB	
29 RADAR BACK SCAT	0.0000000000E+00	dB	
30 INTEGRATED ELEC		MISSING 1/M**2	
31 YEAR	0.2001000000E+04	YEAR	
32 MONTH	0.2000000000E+01	MONTH	
33 DAY	0.1400000000E+02	DAY	
34 HOUR	0.2000000000E+01	HOUR	
35 MINUTE	0.5900000000E+02	MINUTE	
36 SECOND	0.4595800000E+02	SECOND	
37 LOCATION OF PLA	0.2753743040E+07	M	
38 LOCATION OF PLA	-0.6615605120E+07	M	
39 LOCATION OF PLA	0.9200000000E+00	M	
40 VELOCITY OF PLA	-0.1508350560E+04	M/S	
41 VELOCITY OF PLA	-0.6186402400E+03	M/S	

42 VELOCITY OF PLA 0.7376936320E+04 M/S

### 3.34 SSMI brightness temperatures

RDB type 12, subtype 127

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 2656
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 12
    BUFR MESSAGE SUBTYPE              127
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               14
    HOUR                             10
    MINUTE                            9
    VERSION NUMBER OF MASTER TABLE   6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                 127
    YEAR                             2001
    MONTH                             2
    DAY                               14
    HOUR                             10
    MINUTE                            9
    SECOND                            30
    LATITUDE 1                        63.26
    LONGITUDE 1                       85.14
    LATITUDE 2                        69.70
    LONGITUDE 2                       85.14
    NUMBER OF OBSERVATIONS             64
    IDENTIFIER                        246
    TOTAL BUFR MESSAGE LENGTH         2656
    DAY (RDB INSERTION)               14
    HOUR (RDB INSERTION)              12
    MINUTE (RDB INSERTION)            36
    SECOND (RDB INSERTION)            33
    DAY (MDB ARRIVAL)                 14
    HOUR (MDB ARRIVAL)                12
    MINUTE (MDB ARRIVAL)              33
    SECOND (MDB ARRIVAL)              18
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      132
    RESERVED                          0
    NUMBER OF DATA SUBSETS           64
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)
```

```

1  001007
2  005040
3  201132
4  005041
5  030193
6  201000
7  004001
8  004002
9  004003
10 004004
11 004005
12 004006
13 005001
14 006001
15 013202
16 008003
17 012063
18 012063
19 012063
20 012063
21 012063
22 012063
23 012063
24 005001
25 006001
26 013202
27 008003
28 012063
29 012063
30 005001
31 006001
32 013202
33 008003
34 012063
35 012063
36 005001
37 006001
38 013202
39 008003
40 012063
41 012063
42 008193
43 026193
44 026194
45 026195
46 026196
47 026197
48 026198
49 008193
50 026193
51 026194
52 026195
53 026196
54 026197
55 026198
56 008193
57 026193
58 026194
59 026195
60 026196
61 026197
62 026198

```

## DATA DESCRIPTORS (EXPANDED)

```

1  001007  SATELLITE IDENTIFIER
2  005040  ORBIT NUMBER
3  005041  SCAN LINE NUMBER
4  030193  POSITION NUMBER ALONG SCAN
5  004001  YEAR
6  004002  MONTH
7  004003  DAY
8  004004  HOUR
9  004005  MINUTE
10 004006  SECOND
11 005001  LATITUDE (HIGH ACCURACY)
12 006001  LONGITUDE (HIGH ACCURACY)
13 013202  TYPE OF SURFACE
14 008003  VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
15 012063  BRIGHTNESS TEMPERATURE
16 012063  BRIGHTNESS TEMPERATURE
17 012063  BRIGHTNESS TEMPERATURE
18 012063  BRIGHTNESS TEMPERATURE
19 012063  BRIGHTNESS TEMPERATURE
20 012063  BRIGHTNESS TEMPERATURE
21 012063  BRIGHTNESS TEMPERATURE
22 005001  LATITUDE (HIGH ACCURACY)
23 006001  LONGITUDE (HIGH ACCURACY)
24 013202  TYPE OF SURFACE
25 008003  VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
26 012063  BRIGHTNESS TEMPERATURE
27 012063  BRIGHTNESS TEMPERATURE

```

```
28 005001 LATITUDE (HIGH ACCURACY)
29 006001 LONGITUDE (HIGH ACCURACY)
30 013202 TYPE OF SURFACE
31 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
32 012063 BRIGHTNESS TEMPERATURE
33 012063 BRIGHTNESS TEMPERATURE
34 005001 LATITUDE (HIGH ACCURACY)
35 006001 LONGITUDE (HIGH ACCURACY)
36 013202 TYPE OF SURFACE
37 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
38 012063 BRIGHTNESS TEMPERATURE
39 012063 BRIGHTNESS TEMPERATURE
40 008193 TIME QUALIFIER
41 026193 YEAR
42 026194 MONTH
43 026195 DAY
44 026196 HOUR
45 026197 MINUTE
46 026198 SECOND
47 008193 TIME QUALIFIER
48 026193 YEAR
49 026194 MONTH
50 026195 DAY
51 026196 HOUR
52 026197 MINUTE
53 026198 SECOND
54 008193 TIME QUALIFIER
55 026193 YEAR
56 026194 MONTH
57 026195 DAY
58 026196 HOUR
59 026197 MINUTE
60 026198 SECOND
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 SATELLITE IDENT      0.2460000000E+03 CODE TABLE  1007
2 ORBIT NUMBER         0.3041700000E+05 NUMERIC
3 SCAN LINE NUMBE      0.1000000000E+01 NUMERIC
4 POSITION NUMBER        0.1000000000E+01 NUMERIC
5 YEAR                  0.2001000000E+04 YEAR
6 MONTH                 0.2000000000E+01 MONTH
7 DAY                   0.1400000000E+02 DAY
8 HOUR                  0.1000000000E+02 HOUR
9 MINUTE                0.9000000000E+01 MINUTE
10 SECOND               0.3000000000E+02 SECOND
11 LATITUDE (HIGH      0.6326000000E+02 DEGREE
12 LONGITUDE (HIGH     0.8514000000E+02 DEGREE
13 TYPE OF SURFACE      0.0000000000E+00 CODE TABLE  13202
14 VERTICAL SIGNIF      0.5000000000E+01 CODE TABLE  8003
15 BRIGHTNESS TEMP      0.2440000000E+03 K
16 BRIGHTNESS TEMP      0.2376000000E+03 K
17 BRIGHTNESS TEMP      0.2399000000E+03 K
18 BRIGHTNESS TEMP      0.2196000000E+03 K
19 BRIGHTNESS TEMP      0.2159000000E+03 K
20 BRIGHTNESS TEMP      0.2240000000E+03 K
21 BRIGHTNESS TEMP      0.2197000000E+03 K
22 LATITUDE (HIGH      0.6335000000E+02 DEGREE
23 LONGITUDE (HIGH     0.8499000000E+02 DEGREE
24 TYPE OF SURFACE      0.0000000000E+00 CODE TABLE  13202
25 VERTICAL SIGNIF      0.5000000000E+01 CODE TABLE  8003
26 BRIGHTNESS TEMP      0.2234000000E+03 K
27 BRIGHTNESS TEMP      0.2188000000E+03 K
28 LATITUDE (HIGH      0.6338000000E+02 DEGREE
29 LONGITUDE (HIGH     0.8516000000E+02 DEGREE
30 TYPE OF SURFACE      0.0000000000E+00 CODE TABLE  13202
31 VERTICAL SIGNIF      0.5000000000E+01 CODE TABLE  8003
32 BRIGHTNESS TEMP      0.2226000000E+03 K
33 BRIGHTNESS TEMP      0.2174000000E+03 K
34 LATITUDE (HIGH      0.6347000000E+02 DEGREE
35 LONGITUDE (HIGH     0.8502000000E+02 DEGREE
36 TYPE OF SURFACE      0.0000000000E+00 CODE TABLE  13202
37 VERTICAL SIGNIF      0.5000000000E+01 CODE TABLE  8003
38 BRIGHTNESS TEMP      0.2151000000E+03 K
39 BRIGHTNESS TEMP      0.2099000000E+03 K
40 TIME QUALIFIER        0.0000000000E+00 CODE TABLE  8193
41 YEAR                  0.2001000000E+04 YEAR
42 MONTH                 0.2000000000E+01 MONTH
43 DAY                   0.1400000000E+02 DAY
44 HOUR                  0.1000000000E+02 HOUR
45 MINUTE                0.9000000000E+01 MINUTE
46 SECOND               0.3000000000E+02 SECOND
47 TIME QUALIFIER        0.1000000000E+01 CODE TABLE  8193
48 YEAR                  0.2001000000E+04 YEAR
49 MONTH                 0.2000000000E+01 MONTH
50 DAY                   0.1400000000E+02 DAY
51 HOUR                  0.1100000000E+02 HOUR
52 MINUTE                0.5300000000E+02 MINUTE
53 SECOND               0.3000000000E+02 SECOND
54 TIME QUALIFIER        0.2000000000E+01 CODE TABLE  8193
55 YEAR                  0.2001000000E+04 YEAR
56 MONTH                 0.2000000000E+01 MONTH
```



57 DAY	0.1400000000E+02 DAY
58 HOUR	0.1100000000E+02 HOUR
59 MINUTE	0.3300000000E+02 MINUTE
60 SECOND	0.4100000000E+02 SECOND

### 3.35 TRMR rain data

RDB type 2, subtype 130

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000140/
BUFR TABLES TO BE LOADED  B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 1092
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 3
    BUFR MESSAGE SUBTYPE              130
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              1
    MONTH                             2
    DAY                               14
    HOUR                              9
    MINUTE                            1
    VERSION NUMBER OF MASTER TABLE    6
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                    2
    RDB DATA SUBTYPE                 130
    YEAR                              2001
    MONTH                             2
    DAY                               14
    HOUR                              9
    MINUTE                            1
    SECOND                            1
    LATITUDE 1                        2.02
    LONGITUDE 1                       75.20
    LATITUDE 2                        7.63
    LONGITUDE 2                       75.20
    NUMBER OF OBSERVATIONS             208
    IDENTIFIER                        1022
    TOTAL BUFR MESSAGE LENGTH         1092
    DAY (RDB INSERTION)               14
    HOUR (RDB INSERTION)              10
    MINUTE (RDB INSERTION)            46
    SECOND (RDB INSERTION)            38
    DAY (MDB ARRIVAL)                 14
    HOUR (MDB ARRIVAL)                10
    MINUTE (MDB ARRIVAL)              42
    SECOND (MDB ARRIVAL)              28
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   1
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      56
    RESERVED                          0
    NUMBER OF DATA SUBSETS           208
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)
```



```

1 001007
2 005040
3 201133
4 005041
5 201000
6 030193
7 004001
8 004002
9 004003
10 004004
11 004005
12 004006
13 005002
14 006002
15 201132
16 007001
17 201000
18 013202
19 013209
20 013208
21 202130
22 013205
23 202000
24 013206

```

## DATA DESCRIPTORS (EXPANDED)

```

1 001007 SATELLITE IDENTIFIER
2 005040 ORBIT NUMBER
3 005041 SCAN LINE NUMBER
4 030193 POSITION NUMBER ALONG SCAN
5 004001 YEAR
6 004002 MONTH
7 004003 DAY
8 004004 HOUR
9 004005 MINUTE
10 004006 SECOND
11 005002 LATITUDE (COARSE ACCURACY)
12 006002 LONGITUDE (COARSE ACCURACY)
13 007001 HEIGHT OF STATION
14 013202 TYPE OF SURFACE
15 013209 RAIN POSSIBILITY
16 013208 SURFACE RAIN RATE ( INSTANTANEOUS )
17 013205 CLOUD LIQUID WATER PATH
18 013206 TOTAL PRECIPITATION ICE CONTENT

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

1 SATELLITE IDENT 0.1022000000E+04 CODE TABLE 1007
2 ORBIT NUMBER MISSING NUMERIC
3 SCAN LINE NUMBE 0.1663000000E+04 NUMERIC
4 POSITION NUMBER 0.1000000000E+01 NUMERIC
5 YEAR 0.2001000000E+04 YEAR
6 MONTH 0.2000000000E+01 MONTH
7 DAY 0.1400000000E+02 DAY
8 HOUR 0.9000000000E+01 HOUR
9 MINUTE 0.1000000000E+01 MINUTE
10 SECOND 0.1000000000E+01 SECOND
11 LATITUDE (COARS 0.7580000000E+01 DEGREE
12 LONGITUDE (COAR 0.7520000000E+02 DEGREE
13 HEIGHT OF STATI 0.3500000000E+06 M
14 TYPE OF SURFACE MISSING CODE TABLE 13202
15 RAIN POSSIBILIT -0.8000000000E+01 NUMERIC
16 SURFACE RAIN RA 0.0000000000E+00 KG/M**2*S
17 CLOUD LIQUID WA 0.0000000000E+00 KG/M**2
18 TOTAL PRECIPITA 0.0000000000E+00 KG/M**2

```

### 3.36 Soil temperatures

RDB type 1, subtype 7

```

      BUFR SECTION 0

Length of section 0 (bytes)      8
Total length of Bufr message (bytes) 172
Bufr Edition number             3
1
      BUFR SECTION 1

Length of section 1 (bytes)      18
Bufr Edition number              3
Originating sub-centre           0
Originating centre               98
Update sequence number           1
Flag (presence of section 2)    128
Bufr message type                0
Bufr message subtype             7
Version number of local table    1
Year                             1
Month                           2
Day                             14
Hour                            0
Minute                          0
Version number of Master table   6
Bufr Master table                0
1
      BUFR SECTION 2

Length of section 2              52

      Report Data Base Key

RDB data type                    1
RDB data subtype                 7
Year                            2001
Month                           2
Day                             14
Hour                             0
Minute                           0
Second                           0
Latitude 1                      48.57
Longitude 1                     14.00
Identifier                      11008
Total Bufr message length       172
Day (RDB insertion)             14
Hour (RDB insertion)            0
Minute (RDB insertion)          7
Second (RDB insertion)          19
Day (MDB arrival)               14
Hour (MDB arrival)              0
Minute (MDB arrival)            3
Second (MDB arrival)            42
Correction number                0
Part of message                 1
Correction number                0
Part of message                 0
Correction number                0
Part of message                 0
Correction number                0
Part of message                 0
Quality control % conf          70
1
      BUFR SECTION 3

Length of section 3 (bytes)      30
Reserved                        0
Number of data subsets           1
Flag (data type/data compression) 128

      Data descriptors (unexpanded)

1  301031
2  102005
3  007061
4  012030
5  222000
6  101021
7  031031
8  001031
9  001201
10 101021
11 033007
```

```

Data descriptors (expanded)

1 001001 WMO BLOCK NUMBER
2 001002 WMO STATION NUMBER
3 002001 TYPE OF STATION
4 004001 YEAR
5 004002 MONTH
6 004003 DAY
7 004004 HOUR
8 004005 MINUTE
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 007001 HEIGHT OF STATION
12 007061 DEPTH BELOW LAND SURFACE
13 012030 SOIL TEMPERATURE
14 007061 DEPTH BELOW LAND SURFACE
15 012030 SOIL TEMPERATURE
16 007061 DEPTH BELOW LAND SURFACE
17 012030 SOIL TEMPERATURE
18 007061 DEPTH BELOW LAND SURFACE
19 012030 SOIL TEMPERATURE
20 007061 DEPTH BELOW LAND SURFACE
21 012030 SOIL TEMPERATURE
22 222000 QUALITY INFORMATION FOLLOW
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 031031 DATA PRESENT INDICATOR
27 031031 DATA PRESENT INDICATOR
28 031031 DATA PRESENT INDICATOR
29 031031 DATA PRESENT INDICATOR
30 031031 DATA PRESENT INDICATOR
31 031031 DATA PRESENT INDICATOR
32 031031 DATA PRESENT INDICATOR
33 031031 DATA PRESENT INDICATOR
34 031031 DATA PRESENT INDICATOR
35 031031 DATA PRESENT INDICATOR
36 031031 DATA PRESENT INDICATOR
37 031031 DATA PRESENT INDICATOR
38 031031 DATA PRESENT INDICATOR
39 031031 DATA PRESENT INDICATOR
40 031031 DATA PRESENT INDICATOR
41 031031 DATA PRESENT INDICATOR
42 031031 DATA PRESENT INDICATOR
43 031031 DATA PRESENT INDICATOR
44 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
45 001201 GENERATING APPLICATION
46 033007 % CONFIDENCE
47 033007 % CONFIDENCE
48 033007 % CONFIDENCE
49 033007 % CONFIDENCE
50 033007 % CONFIDENCE
51 033007 % CONFIDENCE
52 033007 % CONFIDENCE
53 033007 % CONFIDENCE
54 033007 % CONFIDENCE
55 033007 % CONFIDENCE
56 033007 % CONFIDENCE
57 033007 % CONFIDENCE
58 033007 % CONFIDENCE
59 033007 % CONFIDENCE
60 033007 % CONFIDENCE
61 033007 % CONFIDENCE
62 033007 % CONFIDENCE
63 033007 % CONFIDENCE
64 033007 % CONFIDENCE
65 033007 % CONFIDENCE
66 033007 % CONFIDENCE

```

BUFR SECTION 4 (DATA), SUBSET 1

1 WMO BLOCK NUMBE	11.0000	NUMERIC	
2 WMO STATION NUM	8.0000	NUMERIC	
3 TYPE OF STATION	1.0000	CODE TABLE	2001
4 YEAR	2001.0000	YEAR	
5 MONTH	2.0000	MONTH	
6 DAY	14.0000	DAY	
7 HOUR	.0000	HOUR	
8 MINUTE	.0000	MINUTE	
9 LATITUDE (HIGH	48.5700	DEGREE	
10 LONGITUDE (HIGH	14.0000	DEGREE	
11 HEIGHT OF STATI	602.0000	M	
12 DEPTH BELOW LAN	.1000	M	
13 SOIL TEMPERATUR	MISSING	K	
14 DEPTH BELOW LAN	.2000	M	
15 SOIL TEMPERATUR	MISSING	K	
16 DEPTH BELOW LAN	.5000	M	
17 SOIL TEMPERATUR	MISSING	K	
18 DEPTH BELOW LAN	MISSING	M	
19 SOIL TEMPERATUR	MISSING	K	
20 DEPTH BELOW LAN	MISSING	M	
21 SOIL TEMPERATUR	MISSING	K	

22	QUALITY INFORMA	.0000		
23	DATA PRESENT IN	.0000	NUMERIC	
24	DATA PRESENT IN	.0000	NUMERIC	
25	DATA PRESENT IN	.0000	NUMERIC	
26	DATA PRESENT IN	.0000	NUMERIC	
27	DATA PRESENT IN	.0000	NUMERIC	
28	DATA PRESENT IN	.0000	NUMERIC	
29	DATA PRESENT IN	.0000	NUMERIC	
30	DATA PRESENT IN	.0000	NUMERIC	
31	DATA PRESENT IN	.0000	NUMERIC	
32	DATA PRESENT IN	.0000	NUMERIC	
33	DATA PRESENT IN	.0000	NUMERIC	
34	DATA PRESENT IN	.0000	NUMERIC	
35	DATA PRESENT IN	.0000	NUMERIC	
36	DATA PRESENT IN	.0000	NUMERIC	
37	DATA PRESENT IN	.0000	NUMERIC	
38	DATA PRESENT IN	.0000	NUMERIC	
39	DATA PRESENT IN	.0000	NUMERIC	
40	DATA PRESENT IN	.0000	NUMERIC	
41	DATA PRESENT IN	.0000	NUMERIC	
42	DATA PRESENT IN	.0000	NUMERIC	
43	DATA PRESENT IN	.0000	NUMERIC	
44	IDENTIFICATION	98.0000	CODE TABLE	1031
45	GENERATING APPL	1.0000	CODE TABLE	1201
46	% CONFIDENCE	70.0000	NUMERIC	
47	% CONFIDENCE	70.0000	NUMERIC	
48	% CONFIDENCE	70.0000	NUMERIC	
49	% CONFIDENCE	70.0000	NUMERIC	
50	% CONFIDENCE	70.0000	NUMERIC	
51	% CONFIDENCE	70.0000	NUMERIC	
52	% CONFIDENCE	70.0000	NUMERIC	
53	% CONFIDENCE	70.0000	NUMERIC	
54	% CONFIDENCE	70.0000	NUMERIC	
55	% CONFIDENCE	70.0000	NUMERIC	
56	% CONFIDENCE	70.0000	NUMERIC	
57	% CONFIDENCE	70.0000	NUMERIC	
58	% CONFIDENCE	70.0000	NUMERIC	
59	% CONFIDENCE	70.0000	NUMERIC	
60	% CONFIDENCE	70.0000	NUMERIC	
61	% CONFIDENCE	70.0000	NUMERIC	
62	% CONFIDENCE	70.0000	NUMERIC	
63	% CONFIDENCE	70.0000	NUMERIC	
64	% CONFIDENCE	70.0000	NUMERIC	
65	% CONFIDENCE	70.0000	NUMERIC	
66	% CONFIDENCE	70.0000	NUMERIC	

## 3.37 Tropical storm data

RDB type 8, subtype 31

```

      BUFR SECTION 0

Length of section 0 (bytes)      8
Total length of Bufr message (bytes) 190
Bufr Edition number             3
1
      BUFR SECTION 1

Length of section 1 (bytes)      18
Bufr Edition number              3
Originating sub-centre          0
Originating centre              98
Update sequence number          0
Flag (presence of section 2)    128
Bufr message type               7
Bufr message subtype            31
Version number of local table   1
Year                            1
Month                           2
Day                             12
Hour                            12
Minute                          0
Version number of Master table  6
Bufr Master table               0
1
      BUFR SECTION 2

Length of section 2              52

      Report Data Base Key

RDB data type                   8
RDB data subtype                31
Year                           2001
Month                           2
Day                             12
Hour                            12
Minute                          0
Second                          0
Latitude 1                      -14.61
Longitude 1                     110.80
Latitude 2                      -14.61
Longitude 2                     110.80
Number of observations          1
Identifier                      0
Total Bufr message length       190
Day (RDB insertion)             12
Hour (RDB insertion)            12
Minute (RDB insertion)          25
Second (RDB insertion)          1
Day (MDB arrival)               12
Hour (MDB arrival)              12
Minute (MDB arrival)            22
Second (MDB arrival)            39
Correction number                0
Part of message                 1
Correction number                0
Part of message                 0
Correction number                0
Part of message                 0
Correction number                0
Part of message                 0
Quality control % conf          70
1
      BUFR SECTION 3

Length of section 3 (bytes)      48
Reserved                        0
Number of data subsets           1
Flag (data type/data compression) 128

      Data descriptors (unexpanded)

1  001031
2  001025
3  001026
4  301011
5  301012
6  301023
7  002041
8  019001
9  201130
10 019002

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11 201000  
12 019005  
13 019006  
14 008005  
15 010004  
16 104004  
17 005021  
18 005021  
19 019003  
20 019009

## Data descriptors (expanded)

1 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
2 001025 STORM IDENTIFIER  
3 001026 WMO STORM NAME  
4 004001 YEAR  
5 004002 MONTH  
6 004003 DAY  
7 004004 HOUR  
8 004005 MINUTE  
9 005002 LATITUDE (COARSE ACCURACY)  
10 006002 LONGITUDE (COARSE ACCURACY)  
11 002041 METHOD FOR ESTIMATING REPORTS RELATED TO SYNOPTIC FEATURES  
12 019001 TYPE OF SYNOPTIC FEATURE  
13 019002 EFFECTIVE RADIUS OF FEATURE  
14 019005 DIRECTION OF MOTION OF FEATURE  
15 019006 SPEED OF MOTION OF FEATURE  
16 008005 METEOROLOGICAL ATTRIBUTE SIGNIFICANCE  
17 010004 PRESSURE  
18 005021 BEARING OR AZIMUTH  
19 005021 BEARING OR AZIMUTH  
20 019003 WIND SPEED THRESHOLD  
21 019009 EFFECTIVE RADIUS WITH RESPECT TOWIND SPEEDS ABOVE TRESHOLD  
22 005021 BEARING OR AZIMUTH  
23 005021 BEARING OR AZIMUTH  
24 019003 WIND SPEED THRESHOLD  
25 019009 EFFECTIVE RADIUS WITH RESPECT TOWIND SPEEDS ABOVE TRESHOLD  
26 005021 BEARING OR AZIMUTH  
27 005021 BEARING OR AZIMUTH  
28 019003 WIND SPEED THRESHOLD  
29 019009 EFFECTIVE RADIUS WITH RESPECT TOWIND SPEEDS ABOVE TRESHOLD  
30 005021 BEARING OR AZIMUTH  
31 005021 BEARING OR AZIMUTH  
32 019003 WIND SPEED THRESHOLD  
33 019009 EFFECTIVE RADIUS WITH RESPECT TOWIND SPEEDS ABOVE TRESHOLD

1 IDENTIFICATION	65.0000	CODE TABLE	1031	
2 STORM IDENTIFIE	1003.0000	CCITTIA5		04U
3 WMO STORM NAME	2008.0000	CCITTIA5		VINCENT
4 YEAR	2001.0000	YEAR		
5 MONTH	2.0000	MONTH		
6 DAY	12.0000	DAY		
7 HOUR	12.0000	HOUR		
8 MINUTE	.0000	MINUTE		
9 LATITUDE (COARS	-14.6100	DEGREE		
10 LONGITUDE (COAR	110.8000	DEGREE		
11 METHOD FOR ESTI	.0000	CODE TABLE	2041	
12 TYPE OF SYNOPTI	2.0000	CODE TABLE	19001	
13 EFFECTIVE RADIU	400000.0000	M		
14 DIRECTION OF MO	360.0000	DEGREE TRUE		
15 SPEED OF MOTION	1.5000	M/S		
16 METEOROLOGICAL	1.0000	CODE TABLE	8005	
17 PRESSURE	98600.0000	PA		
18 BEARING OR AZIM	.0000	DEGREE TRUE		
19 BEARING OR AZIM	90.0000	DEGREE TRUE		
20 WIND SPEED THRE	15.0000	M/S		
21 EFFECTIVE RADIU	400000.0000	M		
22 BEARING OR AZIM	90.0000	DEGREE TRUE		
23 BEARING OR AZIM	180.0000	DEGREE TRUE		
24 WIND SPEED THRE	15.0000	M/S		
25 EFFECTIVE RADIU	120000.0000	M		
26 BEARING OR AZIM	180.0000	DEGREE TRUE		
27 BEARING OR AZIM	270.0000	DEGREE TRUE		
28 WIND SPEED THRE	15.0000	M/S		
29 EFFECTIVE RADIU	120000.0000	M		
30 BEARING OR AZIM	270.0000	DEGREE TRUE		
31 BEARING OR AZIM	.0000	DEGREE TRUE		
32 WIND SPEED THRE	15.0000	M/S		
33 EFFECTIVE RADIU	400000.0000	M		

### 3.38 ATOVS 1C Ecmwf calibrated

RDB type 2, subtype 54

BUFR Tables to be loaded B0000980601,D0000980601

```

1
    BUFR SECTION 0

    Length of section 0 (bytes)      8
    Total length of Bufr message (bytes) 2278
    Bufr Edition number              3
1
    BUFR SECTION 1

    Length of section 1 (bytes)      18
    Bufr Edition number              3
    Originating sub-centre           0
    Originating centre               98
    Update sequence number           0
    Flag (presence of section 2)     128
    Bufr message type                3
    Bufr message subtype             54
    Version number of local table     1
    Year                             1
    Month                            2
    Day                              11
    Hour                             8
    Minute                           59
    Version number of Master table    6
    Bufr Master table                0
1
    BUFR SECTION 2

    Length of section 2              52

    Report Data Base Key

    RDB data type                    2
    RDB data subtype                 54
    Year                             2001
    Month                            2
    Day                              11
    Hour                             8
    Minute                           59
    Second                           56
    Latitude 1                       -86.30
    Longitude 1                      -150.74
    Latitude 2                       -70.42
    Longitude 2                      -129.04
    Number of observations            48
    Identifier                       206
    Total Bufr message length        2278
    Day (RDB insertion)              11
    Hour (RDB insertion)             12
    Minute (RDB insertion)           32
    Second (RDB insertion)           4
    Day (MDB arrival)                11
    Hour (MDB arrival)               12
    Minute (MDB arrival)             30
    Second (MDB arrival)             42
    Correction number                 0
    Part of message                  1
    Correction number                 0
    Part of message                  0
    Correction number                 0
    Part of message                  0
    Correction number                 0
    Part of message                  0
    Quality control % conf           70
1
    BUFR SECTION 3

    Length of section 3 (bytes)      10
    Reserved                          0
    Number of data subsets            48
    Flag (data type/data compression) 192

    Data descriptors (unexpanded)

1  310008

    Data descriptors (expanded)

1  008070  TOVS/ATOVS PRODUCT QUALIFIER
2  001033  IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
3  001034  IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE

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4 008070 TOVS/ATOVS PRODUCT QUALIFIER
5 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
6 001034 IDENTIFICATION OF ORIGINATING/GENERATING SUB-CENTRE
7 001007 SATELLITE IDENTIFIER
8 002048 SATELLITE SENSOR INDICATOR
9 005040 ORBIT NUMBER
10 025075 SATELLITE ANTENNA CORRECTIONS VERSION NUMBER
11 005041 SCAN LINE NUMBER
12 005043 FIELD OF VIEW NUMBER
13 025070 MAJOR FRAME COUNT
14 033030 SCAN LINE STATUS FLAGS FOR ATOVS
15 033031 SCAN LINE QUALITY FLAGS FOR ATOVS
16 004001 YEAR
17 004002 MONTH
18 004003 DAY
19 004004 HOUR
20 004005 MINUTE
21 004006 SECOND
22 005001 LATITUDE (HIGH ACCURACY)
23 006001 LONGITUDE (HIGH ACCURACY)
24 007001 HEIGHT OF STATION
25 007024 SATELLITE ZENITH ANGLE
26 005021 BEARING OR AZIMUTH
27 007025 SOLAR ZENITH ANGLE
28 005022 SOLAR AZIMUTH
29 033033 FIELD OF VIEW QUALITY FLAGS FOR ATOVS
30 002151 RADIOMETER IDENTIFIER
31 012064 INSTRUMENT TEMPERATURE
32 002151 RADIOMETER IDENTIFIER
33 012064 INSTRUMENT TEMPERATURE
34 002151 RADIOMETER IDENTIFIER
35 012064 INSTRUMENT TEMPERATURE
36 002151 RADIOMETER IDENTIFIER
37 012064 INSTRUMENT TEMPERATURE
38 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
39 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
40 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
41 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
42 033032 CHANNEL QUALITY FLAGS FOR ATOVS
43 012063 BRIGHTNESS TEMPERATURE
44 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
45 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
46 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
47 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
48 033032 CHANNEL QUALITY FLAGS FOR ATOVS
49 012063 BRIGHTNESS TEMPERATURE
50 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
51 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
52 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
53 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
54 033032 CHANNEL QUALITY FLAGS FOR ATOVS
55 012063 BRIGHTNESS TEMPERATURE
56 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
57 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
58 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
59 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
60 033032 CHANNEL QUALITY FLAGS FOR ATOVS
61 012063 BRIGHTNESS TEMPERATURE
62 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
63 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
64 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
65 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
66 033032 CHANNEL QUALITY FLAGS FOR ATOVS
67 012063 BRIGHTNESS TEMPERATURE
68 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
69 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
70 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
71 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
72 033032 CHANNEL QUALITY FLAGS FOR ATOVS
73 012063 BRIGHTNESS TEMPERATURE
74 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
75 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
76 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
77 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
78 033032 CHANNEL QUALITY FLAGS FOR ATOVS
79 012063 BRIGHTNESS TEMPERATURE
80 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
81 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
82 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
83 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
84 033032 CHANNEL QUALITY FLAGS FOR ATOVS
85 012063 BRIGHTNESS TEMPERATURE
86 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
87 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
88 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
89 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
90 033032 CHANNEL QUALITY FLAGS FOR ATOVS
91 012063 BRIGHTNESS TEMPERATURE
92 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
93 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
94 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
95 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
96 033032 CHANNEL QUALITY FLAGS FOR ATOVS
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97 012063 BRIGHTNESS TEMPERATURE
98 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
99 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
100 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
101 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
102 033032 CHANNEL QUALITY FLAGS FOR ATOVS
103 012063 BRIGHTNESS TEMPERATURE
104 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
105 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
106 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
107 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
108 033032 CHANNEL QUALITY FLAGS FOR ATOVS
109 012063 BRIGHTNESS TEMPERATURE
110 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
111 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
112 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
113 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
114 033032 CHANNEL QUALITY FLAGS FOR ATOVS
115 012063 BRIGHTNESS TEMPERATURE
116 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
117 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
118 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
119 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
120 033032 CHANNEL QUALITY FLAGS FOR ATOVS
121 012063 BRIGHTNESS TEMPERATURE
122 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
123 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
124 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
125 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
126 033032 CHANNEL QUALITY FLAGS FOR ATOVS
127 012063 BRIGHTNESS TEMPERATURE
128 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
129 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
130 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
131 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
132 033032 CHANNEL QUALITY FLAGS FOR ATOVS
133 012063 BRIGHTNESS TEMPERATURE
134 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
135 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
136 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
137 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
138 033032 CHANNEL QUALITY FLAGS FOR ATOVS
139 012063 BRIGHTNESS TEMPERATURE
140 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
141 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
142 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
143 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
144 033032 CHANNEL QUALITY FLAGS FOR ATOVS
145 012063 BRIGHTNESS TEMPERATURE
146 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
147 025076 LOG_10 OF (TEMPERATURE-RADIANCE CENTRAL WAVENUMBER) FOR ATOVS
148 025077 BANDWIDTH CORRECTION COEFFICIENT 1 for ATOVS
149 025078 BANDWIDTH CORRECTION COEFFICIENT 2 FOR ATOVS
150 033032 CHANNEL QUALITY FLAGS FOR ATOVS
151 012063 BRIGHTNESS TEMPERATURE
152 002150 TOVS/ATOVS/AVHRR INSTRUMENTATION
153 025079 ALBEDO-RADIANCE SOLAR FILTERED IRRADIANCE FOR ATOVS
154 025080 ALBEDO-RADIANCE EQUIVALENT FILTER WIDTH FOR ATOVS
155 033032 CHANNEL QUALITY FLAGS FOR ATOVS
156 014045 Channel radiance

```

BUFR SECTION 4 (DATA), SUBSET 1

1	TOVS/ATOVS PROD	3.0000	CODE TABLE	8070
2	IDENTIFICATION	98.0000	CODE TABLE	1033
3	IDENTIFICATION	MISSING	CODE TABLE	1034
4	TOVS/ATOVS PROD	3.0000	CODE TABLE	8070
5	IDENTIFICATION	98.0000	CODE TABLE	1033
6	IDENTIFICATION	MISSING	CODE TABLE	1034
7	SATELLITE IDENT	206.0000	CODE TABLE	1007
8	SATELLITE SENSO	.0000	CODE TABLE	2048
9	ORBIT NUMBER	31536.0000	NUMERIC	
10	SATELLITE ANTEN	MISSING	NUMERIC	
11	SCAN LINE NUMBE	458.0000	NUMERIC	
12	FIELD OF VIEW N	9.0000	NUMERIC	
13	MAJOR FRAME COU	MISSING	NUMERIC	
14	SCAN LINE STATU	MISSING	FLAG TABLE	33030
15	SCAN LINE QUALI	MISSING	FLAG TABLE	33031
16	YEAR	2001.0000	YEAR	
17	MONTH	2.0000	MONTH	
18	DAY	11.0000	DAY	
19	HOUR	8.0000	HOUR	
20	MINUTE	59.0000	MINUTE	
21	SECOND	56.8930	SECOND	
22	LATITUDE (HIGH	-86.3047	DEGREE	
23	LONGITUDE (HIGH	-129.0391	DEGREE	
24	HEIGHT OF STATI	884000.0000	M	
25	SATELLITE ZENIT	40.9000	DEGREE	
26	BEARING OR AZIM	MISSING	DEGREE TRUE	
27	SOLAR ZENITH AN	MISSING	DEGREE	
28	SOLAR AZIMUTH	MISSING	DEGREE TRUE	
29	FIELD OF VIEW Q	MISSING	FLAG TABLE	33033
30	RADIOMETER IDEN	MISSING	CODE TABLE	2151

31	INSTRUMENT TEMP	MISSING K	
32	RADIOMETER IDEN	MISSING CODE TABLE	2151
33	INSTRUMENT TEMP	MISSING K	
34	RADIOMETER IDEN	MISSING CODE TABLE	2151
35	INSTRUMENT TEMP	MISSING K	
36	RADIOMETER IDEN	MISSING CODE TABLE	2151
37	INSTRUMENT TEMP	MISSING K	
38	TOVS/ATOVS/AVHR	1.0000 CODE TABLE	2150
39	LOG_10 OF (TEMP	MISSING LOG (1/M)	
40	BANDWIDTH CORRE	MISSING NUMERIC	
41	BANDWIDTH CORRE	MISSING NUMERIC	
42	CHANNEL QUALITY	MISSING FLAG TABLE	33032
43	BRIGHTNESS TEMP	244.1400 K	
44	TOVS/ATOVS/AVHR	2.0000 CODE TABLE	2150
45	LOG_10 OF (TEMP	MISSING LOG (1/M)	
46	BANDWIDTH CORRE	MISSING NUMERIC	
47	BANDWIDTH CORRE	MISSING NUMERIC	
48	CHANNEL QUALITY	MISSING FLAG TABLE	33032
49	BRIGHTNESS TEMP	235.7300 K	
50	TOVS/ATOVS/AVHR	3.0000 CODE TABLE	2150
51	LOG_10 OF (TEMP	MISSING LOG (1/M)	
52	BANDWIDTH CORRE	MISSING NUMERIC	
53	BANDWIDTH CORRE	MISSING NUMERIC	
54	CHANNEL QUALITY	MISSING FLAG TABLE	33032
55	BRIGHTNESS TEMP	234.0600 K	
56	TOVS/ATOVS/AVHR	4.0000 CODE TABLE	2150
57	LOG_10 OF (TEMP	MISSING LOG (1/M)	
58	BANDWIDTH CORRE	MISSING NUMERIC	
59	BANDWIDTH CORRE	MISSING NUMERIC	
60	CHANNEL QUALITY	MISSING FLAG TABLE	33032
61	BRIGHTNESS TEMP	232.0600 K	
62	TOVS/ATOVS/AVHR	5.0000 CODE TABLE	2150
63	LOG_10 OF (TEMP	MISSING LOG (1/M)	
64	BANDWIDTH CORRE	MISSING NUMERIC	
65	BANDWIDTH CORRE	MISSING NUMERIC	
66	CHANNEL QUALITY	MISSING FLAG TABLE	33032
67	BRIGHTNESS TEMP	234.8700 K	
68	TOVS/ATOVS/AVHR	6.0000 CODE TABLE	2150
69	LOG_10 OF (TEMP	MISSING LOG (1/M)	
70	BANDWIDTH CORRE	MISSING NUMERIC	
71	BANDWIDTH CORRE	MISSING NUMERIC	
72	CHANNEL QUALITY	MISSING FLAG TABLE	33032
73	BRIGHTNESS TEMP	237.7100 K	
74	TOVS/ATOVS/AVHR	7.0000 CODE TABLE	2150
75	LOG_10 OF (TEMP	MISSING LOG (1/M)	
76	BANDWIDTH CORRE	MISSING NUMERIC	
77	BANDWIDTH CORRE	MISSING NUMERIC	
78	CHANNEL QUALITY	MISSING FLAG TABLE	33032
79	BRIGHTNESS TEMP	241.4100 K	
80	TOVS/ATOVS/AVHR	8.0000 CODE TABLE	2150
81	LOG_10 OF (TEMP	MISSING LOG (1/M)	
82	BANDWIDTH CORRE	MISSING NUMERIC	
83	BANDWIDTH CORRE	MISSING NUMERIC	
84	CHANNEL QUALITY	MISSING FLAG TABLE	33032
85	BRIGHTNESS TEMP	245.5100 K	
86	TOVS/ATOVS/AVHR	9.0000 CODE TABLE	2150
87	LOG_10 OF (TEMP	MISSING LOG (1/M)	
88	BANDWIDTH CORRE	MISSING NUMERIC	
89	BANDWIDTH CORRE	MISSING NUMERIC	
90	CHANNEL QUALITY	MISSING FLAG TABLE	33032
91	BRIGHTNESS TEMP	240.8800 K	
92	TOVS/ATOVS/AVHR	10.0000 CODE TABLE	2150
93	LOG_10 OF (TEMP	MISSING LOG (1/M)	
94	BANDWIDTH CORRE	MISSING NUMERIC	
95	BANDWIDTH CORRE	MISSING NUMERIC	
96	CHANNEL QUALITY	MISSING FLAG TABLE	33032
97	BRIGHTNESS TEMP	244.4700 K	
98	TOVS/ATOVS/AVHR	11.0000 CODE TABLE	2150
99	LOG_10 OF (TEMP	MISSING LOG (1/M)	
100	BANDWIDTH CORRE	MISSING NUMERIC	
101	BANDWIDTH CORRE	MISSING NUMERIC	
102	CHANNEL QUALITY	MISSING FLAG TABLE	33032
103	BRIGHTNESS TEMP	240.5800 K	
104	TOVS/ATOVS/AVHR	12.0000 CODE TABLE	2150
105	LOG_10 OF (TEMP	MISSING LOG (1/M)	
106	BANDWIDTH CORRE	MISSING NUMERIC	
107	BANDWIDTH CORRE	MISSING NUMERIC	
108	CHANNEL QUALITY	MISSING FLAG TABLE	33032
109	BRIGHTNESS TEMP	231.7600 K	
110	TOVS/ATOVS/AVHR	13.0000 CODE TABLE	2150
111	LOG_10 OF (TEMP	MISSING LOG (1/M)	
112	BANDWIDTH CORRE	MISSING NUMERIC	
113	BANDWIDTH CORRE	MISSING NUMERIC	
114	CHANNEL QUALITY	MISSING FLAG TABLE	33032
115	BRIGHTNESS TEMP	240.3900 K	
116	TOVS/ATOVS/AVHR	14.0000 CODE TABLE	2150
117	LOG_10 OF (TEMP	MISSING LOG (1/M)	
118	BANDWIDTH CORRE	MISSING NUMERIC	
119	BANDWIDTH CORRE	MISSING NUMERIC	
120	CHANNEL QUALITY	MISSING FLAG TABLE	33032
121	BRIGHTNESS TEMP	236.9300 K	
122	TOVS/ATOVS/AVHR	15.0000 CODE TABLE	2150
123	LOG_10 OF (TEMP	MISSING LOG (1/M)	

124 BANDWIDTH CORRE	MISSING NUMERIC	
125 BANDWIDTH CORRE	MISSING NUMERIC	
126 CHANNEL QUALITY	MISSING FLAG TABLE	33032
127 BRIGHTNESS TEMP	234.1100 K	
128 TOVS/ATOVS/AVHR	16.0000 CODE TABLE	2150
129 LOG_10 OF (TEMP	MISSING LOG (1/M)	
130 BANDWIDTH CORRE	MISSING NUMERIC	
131 BANDWIDTH CORRE	MISSING NUMERIC	
132 CHANNEL QUALITY	MISSING FLAG TABLE	33032
133 BRIGHTNESS TEMP	236.1700 K	
134 TOVS/ATOVS/AVHR	17.0000 CODE TABLE	2150
135 LOG_10 OF (TEMP	MISSING LOG (1/M)	
136 BANDWIDTH CORRE	MISSING NUMERIC	
137 BANDWIDTH CORRE	MISSING NUMERIC	
138 CHANNEL QUALITY	MISSING FLAG TABLE	33032
139 BRIGHTNESS TEMP	245.9700 K	
140 TOVS/ATOVS/AVHR	18.0000 CODE TABLE	2150
141 LOG_10 OF (TEMP	MISSING LOG (1/M)	
142 BANDWIDTH CORRE	MISSING NUMERIC	
143 BANDWIDTH CORRE	MISSING NUMERIC	
144 CHANNEL QUALITY	MISSING FLAG TABLE	33032
145 BRIGHTNESS TEMP	254.4500 K	
146 TOVS/ATOVS/AVHR	19.0000 CODE TABLE	2150
147 LOG_10 OF (TEMP	MISSING LOG (1/M)	
148 BANDWIDTH CORRE	MISSING NUMERIC	
149 BANDWIDTH CORRE	MISSING NUMERIC	
150 CHANNEL QUALITY	MISSING FLAG TABLE	33032
151 BRIGHTNESS TEMP	263.8700 K	
152 TOVS/ATOVS/AVHR	20.0000 CODE TABLE	2150
153 ALBEDO-RADIANCE	MISSING W/M**2	
154 ALBEDO-RADIANCE	MISSING M	
155 CHANNEL QUALITY	MISSING FLAG TABLE	33032
156 Channel radianc	MISSING (W/m**2) * (1/sr) *cm	

### 3.39 Satob section 4

RDB type 3, subtype 84

BUFR Tables to be loaded B0000980601,D0000980601

```
1
    BUFR SECTION 0

    Length of section 0 (bytes)      8
    Total length of Bufr message (bytes) 206
    Bufr Edition number              3
```

```
1
    BUFR SECTION 1

    Length of section 1 (bytes)      18
    Bufr Edition number              3
    Originating sub-centre           0
    Originating centre                98
    Update sequence number            1
    Flag (presence of section 2)     128
    Bufr message type                 5
    Bufr message subtype              84
    Version number of local table     1
    Year                              1
    Month                            2
    Day                              14
    Hour                             11
    Minute                           0
    Version number of Master table    6
    Bufr Master table                 0
```

```
1
    BUFR SECTION 2

    Length of section 2              52

    Report Data Base Key

    RDB data type                    3
    RDB data subtype                  84
    Year                             2001
    Month                            2
    Day                              14
    Hour                             11
    Minute                           0
    Second                           0
    Latitude 1                       10.00
    Longitude 1                      111.00
    Latitude 2                       11.00
    Longitude 2                      135.00
    Number of observations             3
    Identifier                        52
    Total Bufr message length         206
    Day (RDB insertion)               14
    Hour (RDB insertion)              12
    Minute (RDB insertion)            10
    Second (RDB insertion)            57
    Day (MDB arrival)                 14
    Hour (MDB arrival)                12
    Minute (MDB arrival)              8
    Second (MDB arrival)              58
    Correction number                 0
    Part of message                   1
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Quality control % conf            70
```

```
1
    BUFR SECTION 3

    Length of section 3 (bytes)      26
    Reserved                          0
    Number of data subsets            3
    Flag (data type/data compression) 128
```

Data descriptors (unexpanded)

```
1 301042
2 304003
3 222000
4 101012
5 031031
6 001031
7 001032
8 101012
```

9 033007

Data descriptors (expanded)

```

1 001007 SATELLITE IDENTIFIER
2 002021 SATELLITE INSTRUMENT DATA USED IN PROCESSING
3 002022 SATELLITE DATA PROCESSING TECHNIQUE USED
4 004001 YEAR
5 004002 MONTH
6 004003 DAY
7 004004 HOUR
8 004005 MINUTE
9 005001 LATITUDE (HIGH ACCURACY)
10 006001 LONGITUDE (HIGH ACCURACY)
11 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
12 012001 TEMPERATURE/DRY BULB TEMPERATURE
13 222000 QUALITY INFORMATION FOLLOW
14 031031 DATA PRESENT INDICATOR
15 031031 DATA PRESENT INDICATOR
16 031031 DATA PRESENT INDICATOR
17 031031 DATA PRESENT INDICATOR
18 031031 DATA PRESENT INDICATOR
19 031031 DATA PRESENT INDICATOR
20 031031 DATA PRESENT INDICATOR
21 031031 DATA PRESENT INDICATOR
22 031031 DATA PRESENT INDICATOR
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
27 001032 GENERATING APPLICATION
28 033007 % CONFIDENCE
29 033007 % CONFIDENCE
30 033007 % CONFIDENCE
31 033007 % CONFIDENCE
32 033007 % CONFIDENCE
33 033007 % CONFIDENCE
34 033007 % CONFIDENCE
35 033007 % CONFIDENCE
36 033007 % CONFIDENCE
37 033007 % CONFIDENCE
38 033007 % CONFIDENCE
39 033007 % CONFIDENCE

```

BUFR SECTION 4 (DATA), SUBSET 1

1	SATELLITE IDENT	52.0000	CODE TABLE	1007
2	SATELLITE INSTR		MISSING FLAG TABLE	2021
3	SATELLITE DATA		MISSING FLAG TABLE	2022
4	YEAR	2001.0000	YEAR	
5	MONTH	2.0000	MONTH	
6	DAY	14.0000	DAY	
7	HOUR	11.0000	HOUR	
8	MINUTE	.0000	MINUTE	
9	LATITUDE (HIGH	11.0000	DEGREE	
10	LONGITUDE (HIGH	111.0000	DEGREE	
11	VERTICAL SIGNIF	.0000	CODE TABLE	8003
12	TEMPERATURE/DRY	276.6000	K	
13	QUALITY INFORMA	.0000		
14	DATA PRESENT IN	.0000	NUMERIC	
15	DATA PRESENT IN	.0000	NUMERIC	
16	DATA PRESENT IN	.0000	NUMERIC	
17	DATA PRESENT IN	.0000	NUMERIC	
18	DATA PRESENT IN	.0000	NUMERIC	
19	DATA PRESENT IN	.0000	NUMERIC	
20	DATA PRESENT IN	.0000	NUMERIC	
21	DATA PRESENT IN	.0000	NUMERIC	
22	DATA PRESENT IN	.0000	NUMERIC	
23	DATA PRESENT IN	.0000	NUMERIC	
24	DATA PRESENT IN	.0000	NUMERIC	
25	DATA PRESENT IN	.0000	NUMERIC	
26	IDENTIFICATION	98.0000	CODE TABLE	1031
27	GENERATING APPL	1.0000	CODE TABLE	1032
28	% CONFIDENCE	70.0000	NUMERIC	
29	% CONFIDENCE	70.0000	NUMERIC	
30	% CONFIDENCE	70.0000	NUMERIC	
31	% CONFIDENCE	70.0000	NUMERIC	
32	% CONFIDENCE	70.0000	NUMERIC	
33	% CONFIDENCE	70.0000	NUMERIC	
34	% CONFIDENCE	70.0000	NUMERIC	
35	% CONFIDENCE	70.0000	NUMERIC	
36	% CONFIDENCE	70.0000	NUMERIC	
37	% CONFIDENCE	70.0000	NUMERIC	
38	% CONFIDENCE	70.0000	NUMERIC	
39	% CONFIDENCE	70.0000	NUMERIC	

## 3.40 Wind profiler

RDB type 4, subtype 97

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	302
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	0
Flag (presence of section 2)	128
Bufr message type	2
Bufr message subtype	97
Version number of local table	1
Year	1
Month	2
Day	11
Hour	0
Minute	10
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
---------------------	----

### Report Data Base Key

RDB data type	4
RDB data subtype	97
Year	2001
Month	2
Day	11
Hour	0
Minute	1
Second	0
Latitude 1	52.21
Longitude 1	14.13
Identifier	10394
Total Bufr message length	302
Day (RDB insertion)	11
Hour (RDB insertion)	0
Minute (RDB insertion)	15
Second (RDB insertion)	11
Day (MDB arrival)	11
Hour (MDB arrival)	0
Minute (MDB arrival)	15
Second (MDB arrival)	9
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	68
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

### Data descriptors (unexpanded)

1	301032
2	002003
3	002101
4	201130
5	002106
6	201000
7	201132
8	202130
9	002121
10	202000
11	201000

```

12 201133
13 202129
14 025001
15 202000
16 201000
17 025020
18 025021
19 008021
20 004025
21 010004
22 107000
23 031001
24 007007
25 204001
26 031021
27 012007
28 011006
29 204000
30 021030

```

## Data descriptors (expanded)

```

1 001001 WMO BLOCK NUMBER
2 001002 WMO STATION NUMBER
3 002001 TYPE OF STATION
4 004001 YEAR
5 004002 MONTH
6 004003 DAY
7 004004 HOUR
8 004005 MINUTE
9 005002 LATITUDE (COARSE ACCURACY)
10 006002 LONGITUDE (COARSE ACCURACY)
11 007001 HEIGHT OF STATION
12 002003 TYPE OF MEASURING EQUIPMENT USED
13 002101 TYPE OF ANTENNA
14 002106 3-dB BEAMWIDTH
15 002121 MEAN FREQUENCY
16 025001 RANGE-GATE LENGTH
17 025020 MEAN SPEED ESTIMATION
18 025021 WIND COMPUTATION ENHANCEMENT
19 008021 TIME SIGNIFICANCE
20 004025 TIME PERIOD OR DISPLACEMENT
21 010004 PRESSURE
22 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
23 007007 HEIGHT
24 031021 ASSOCIATED FIELD SIGNIFICANCE
25 999999 ASSOCIATED FIELD
26 012007 VIRTUAL TEMPERATURE
27 999999 ASSOCIATED FIELD
28 011006 W-COMPONENT
29 021030 SIGNAL TO NOISE RATIO
30 007007 HEIGHT
31 031021 ASSOCIATED FIELD SIGNIFICANCE
32 999999 ASSOCIATED FIELD
33 012007 VIRTUAL TEMPERATURE
34 999999 ASSOCIATED FIELD
35 011006 W-COMPONENT
36 021030 SIGNAL TO NOISE RATIO
37 007007 HEIGHT
38 031021 ASSOCIATED FIELD SIGNIFICANCE
39 999999 ASSOCIATED FIELD
40 012007 VIRTUAL TEMPERATURE
41 999999 ASSOCIATED FIELD
42 011006 W-COMPONENT
43 021030 SIGNAL TO NOISE RATIO
44 007007 HEIGHT
45 031021 ASSOCIATED FIELD SIGNIFICANCE
46 999999 ASSOCIATED FIELD
47 012007 VIRTUAL TEMPERATURE
48 999999 ASSOCIATED FIELD
49 011006 W-COMPONENT
50 021030 SIGNAL TO NOISE RATIO
51 007007 HEIGHT
52 031021 ASSOCIATED FIELD SIGNIFICANCE
53 999999 ASSOCIATED FIELD
54 012007 VIRTUAL TEMPERATURE
55 999999 ASSOCIATED FIELD
56 011006 W-COMPONENT
57 021030 SIGNAL TO NOISE RATIO
58 007007 HEIGHT
59 031021 ASSOCIATED FIELD SIGNIFICANCE
60 999999 ASSOCIATED FIELD
61 012007 VIRTUAL TEMPERATURE
62 999999 ASSOCIATED FIELD
63 011006 W-COMPONENT
64 021030 SIGNAL TO NOISE RATIO
65 007007 HEIGHT
66 031021 ASSOCIATED FIELD SIGNIFICANCE
67 999999 ASSOCIATED FIELD
68 012007 VIRTUAL TEMPERATURE
69 999999 ASSOCIATED FIELD
70 011006 W-COMPONENT

```

```
71 021030 SIGNAL TO NOISE RATIO
72 007007 HEIGHT
73 031021 ASSOCIATED FIELD SIGNIFICANCE
74 999999 ASSOCIATED FIELD
75 012007 VIRTUAL TEMPERATURE
76 999999 ASSOCIATED FIELD
77 011006 W-COMPONENT
78 021030 SIGNAL TO NOISE RATIO
79 007007 HEIGHT
80 031021 ASSOCIATED FIELD SIGNIFICANCE
81 999999 ASSOCIATED FIELD
82 012007 VIRTUAL TEMPERATURE
83 999999 ASSOCIATED FIELD
84 011006 W-COMPONENT
85 021030 SIGNAL TO NOISE RATIO
86 007007 HEIGHT
87 031021 ASSOCIATED FIELD SIGNIFICANCE
88 999999 ASSOCIATED FIELD
89 012007 VIRTUAL TEMPERATURE
90 999999 ASSOCIATED FIELD
91 011006 W-COMPONENT
92 021030 SIGNAL TO NOISE RATIO
93 007007 HEIGHT
94 031021 ASSOCIATED FIELD SIGNIFICANCE
95 999999 ASSOCIATED FIELD
96 012007 VIRTUAL TEMPERATURE
97 999999 ASSOCIATED FIELD
98 011006 W-COMPONENT
99 021030 SIGNAL TO NOISE RATIO
100 007007 HEIGHT
101 031021 ASSOCIATED FIELD SIGNIFICANCE
102 999999 ASSOCIATED FIELD
103 012007 VIRTUAL TEMPERATURE
104 999999 ASSOCIATED FIELD
105 011006 W-COMPONENT
106 021030 SIGNAL TO NOISE RATIO
107 007007 HEIGHT
108 031021 ASSOCIATED FIELD SIGNIFICANCE
109 999999 ASSOCIATED FIELD
110 012007 VIRTUAL TEMPERATURE
111 999999 ASSOCIATED FIELD
112 011006 W-COMPONENT
113 021030 SIGNAL TO NOISE RATIO
114 007007 HEIGHT
115 031021 ASSOCIATED FIELD SIGNIFICANCE
116 999999 ASSOCIATED FIELD
117 012007 VIRTUAL TEMPERATURE
118 999999 ASSOCIATED FIELD
119 011006 W-COMPONENT
120 021030 SIGNAL TO NOISE RATIO
121 007007 HEIGHT
122 031021 ASSOCIATED FIELD SIGNIFICANCE
123 999999 ASSOCIATED FIELD
124 012007 VIRTUAL TEMPERATURE
125 999999 ASSOCIATED FIELD
126 011006 W-COMPONENT
127 021030 SIGNAL TO NOISE RATIO
128 007007 HEIGHT
129 031021 ASSOCIATED FIELD SIGNIFICANCE
130 999999 ASSOCIATED FIELD
131 012007 VIRTUAL TEMPERATURE
132 999999 ASSOCIATED FIELD
133 011006 W-COMPONENT
134 021030 SIGNAL TO NOISE RATIO
135 007007 HEIGHT
136 031021 ASSOCIATED FIELD SIGNIFICANCE
137 999999 ASSOCIATED FIELD
138 012007 VIRTUAL TEMPERATURE
139 999999 ASSOCIATED FIELD
140 011006 W-COMPONENT
141 021030 SIGNAL TO NOISE RATIO
```

## BUFR SECTION 4 (DATA), SUBSET 1

1	WMO BLOCK NUMBE	10.0000	NUMERIC	
2	WMO STATION NUM	394.0000	NUMERIC	
3	TYPE OF STATION	2.0000	CODE TABLE	2001
4	YEAR	2001.0000	YEAR	
5	MONTH	2.0000	MONTH	
6	DAY	11.0000	DAY	
7	HOUR	.0000	HOUR	
8	MINUTE	1.0000	MINUTE	
9	LATITUDE (COARS	52.2100	DEGREE	
10	LONGITUDE (COAR	14.1300	DEGREE	
11	HEIGHT OF STATI	103.0000	M	
12	TYPE OF MEASURI	8.0000	CODE TABLE	2003
13	TYPE OF ANTENNA	7.0000	CODE TABLE	2101
14	3-dB BEAMWIDTH	2.7000	DEGREE	
15	MEAN FREQUENCY	482000000.0000	Hz	
16	RANGE-GATE LENG	254.0000	M	
17	MEAN SPEED ESTI	.0000	CODE TABLE	25020
18	WIND COMPUTATIO		MISSING FLAG TABLE	25021
19	TIME SIGNIFICAN	2.0000	CODE TABLE	8021



20	TIME PERIOD OR	3.0000	MINUTE	
21	PRESSURE		MISSING	PA
22	DELAYED DESCRIP	17.0000	NUMERIC	
23	HEIGHT	576.0000	M	
24	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
25	ASSOCIATED FIEL	.0000		
26	VIRTUAL TEMPERA	272.6000	K	
27	ASSOCIATED FIEL	.0000		
28	W-COMPONENT	.0000	M/S	
29	SIGNAL TO NOISE	-21.0000	dB	
30	HEIGHT	711.0000	M	
31	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
32	ASSOCIATED FIEL	.0000		
33	VIRTUAL TEMPERA	272.2000	K	
34	ASSOCIATED FIEL	.0000		
35	W-COMPONENT	.1000	M/S	
36	SIGNAL TO NOISE	-8.0000	dB	
37	HEIGHT	846.0000	M	
38	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
39	ASSOCIATED FIEL	.0000		
40	VIRTUAL TEMPERA	271.8000	K	
41	ASSOCIATED FIEL	.0000		
42	W-COMPONENT	.2000	M/S	
43	SIGNAL TO NOISE	3.0000	dB	
44	HEIGHT	981.0000	M	
45	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
46	ASSOCIATED FIEL	.0000		
47	VIRTUAL TEMPERA	271.3000	K	
48	ASSOCIATED FIEL	.0000		
49	W-COMPONENT	.1000	M/S	
50	SIGNAL TO NOISE	6.0000	dB	
51	HEIGHT	1116.0000	M	
52	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
53	ASSOCIATED FIEL	.0000		
54	VIRTUAL TEMPERA	271.2000	K	
55	ASSOCIATED FIEL	.0000		
56	W-COMPONENT	.1000	M/S	
57	SIGNAL TO NOISE	2.0000	dB	
58	HEIGHT	1251.0000	M	
59	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
60	ASSOCIATED FIEL	.0000		
61	VIRTUAL TEMPERA	271.0000	K	
62	ASSOCIATED FIEL	.0000		
63	W-COMPONENT	.0000	M/S	
64	SIGNAL TO NOISE	-4.0000	dB	
65	HEIGHT	1386.0000	M	
66	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
67	ASSOCIATED FIEL	.0000		
68	VIRTUAL TEMPERA	270.7000	K	
69	ASSOCIATED FIEL	.0000		
70	W-COMPONENT	.0000	M/S	
71	SIGNAL TO NOISE	-5.0000	dB	
72	HEIGHT	1521.0000	M	
73	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
74	ASSOCIATED FIEL	.0000		
75	VIRTUAL TEMPERA	270.2000	K	
76	ASSOCIATED FIEL	.0000		
77	W-COMPONENT	.0000	M/S	
78	SIGNAL TO NOISE	-8.0000	dB	
79	HEIGHT	1656.0000	M	
80	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
81	ASSOCIATED FIEL	.0000		
82	VIRTUAL TEMPERA	270.0000	K	
83	ASSOCIATED FIEL	.0000		
84	W-COMPONENT	.0000	M/S	
85	SIGNAL TO NOISE	-12.0000	dB	
86	HEIGHT	1791.0000	M	
87	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
88	ASSOCIATED FIEL	.0000		
89	VIRTUAL TEMPERA	270.0000	K	
90	ASSOCIATED FIEL	.0000		
91	W-COMPONENT	-.1000	M/S	
92	SIGNAL TO NOISE	-16.0000	dB	
93	HEIGHT	1926.0000	M	
94	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
95	ASSOCIATED FIEL	.0000		
96	VIRTUAL TEMPERA	270.1000	K	
97	ASSOCIATED FIEL	.0000		
98	W-COMPONENT	-.1000	M/S	
99	SIGNAL TO NOISE	-17.0000	dB	
100	HEIGHT	2061.0000	M	
101	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
102	ASSOCIATED FIEL	.0000		
103	VIRTUAL TEMPERA	270.3000	K	
104	ASSOCIATED FIEL	.0000		
105	W-COMPONENT	-.2000	M/S	
106	SIGNAL TO NOISE	-2.0000	dB	
107	HEIGHT	2196.0000	M	
108	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
109	ASSOCIATED FIEL	.0000		
110	VIRTUAL TEMPERA	270.2000	K	
111	ASSOCIATED FIEL	.0000		
112	W-COMPONENT	-.1000	M/S	

113	SIGNAL TO NOISE	6.0000	dB	
114	HEIGHT	2331.0000	M	
115	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
116	ASSOCIATED FIEL	.0000		
117	VIRTUAL TEMPERA	269.2000	K	
118	ASSOCIATED FIEL	.0000		
119	W-COMPONENT	-.1000	M/S	
120	SIGNAL TO NOISE	5.0000	dB	
121	HEIGHT	2466.0000	M	
122	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
123	ASSOCIATED FIEL	.0000		
124	VIRTUAL TEMPERA	267.9000	K	
125	ASSOCIATED FIEL	.0000		
126	W-COMPONENT	-.2000	M/S	
127	SIGNAL TO NOISE	1.0000	dB	
128	HEIGHT	2601.0000	M	
129	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
130	ASSOCIATED FIEL	.0000		
131	VIRTUAL TEMPERA	266.4000	K	
132	ASSOCIATED FIEL	.0000		
133	W-COMPONENT	-.1000	M/S	
134	SIGNAL TO NOISE	-3.0000	dB	
135	HEIGHT	2736.0000	M	
136	ASSOCIATED FIEL	1.0000	CODE TABLE	31021
137	ASSOCIATED FIEL	.0000		
138	VIRTUAL TEMPERA	265.5000	K	
139	ASSOCIATED FIEL	.0000		
140	W-COMPONENT	-.2000	M/S	
141	SIGNAL TO NOISE	-6.0000	dB	

## 3.41 ROCOB data

RDB type 5, subtype 104

BUFR Tables to be loaded B0000980601,D0000980601

```

1
    BUFR SECTION 0

    Length of section 0 (bytes)      8
    Total length of Bufr message (bytes) 558
    Bufr Edition number              3

```

```

1
    BUFR SECTION 1

    Length of section 1 (bytes)      18
    Bufr Edition number              3
    Originating sub-centre           0
    Originating centre               98
    Update sequence number           1
    Flag (presence of section 2)     128
    Bufr message type                2
    Bufr message subtype             104
    Version number of local table     1
    Year                             1
    Month                            2
    Day                              14
    Hour                             2
    Minute                           0
    Version number of Master table    6
    Bufr Master table                0

```

```

1
    BUFR SECTION 2

    Length of section 2              52

    Report Data Base Key

    RDB data type                    5
    RDB data subtype                 104
    Year                             2001
    Month                            2
    Day                              14
    Hour                             2
    Minute                           0
    Second                           0
    Latitude 1                       39.03
    Longitude 1                      141.83
    Identifier                        47513
    Total Bufr message length        558
    Day (RDB insertion)              14
    Hour (RDB insertion)              4
    Minute (RDB insertion)           49
    Second (RDB insertion)           52
    Day (MDB arrival)                14
    Hour (MDB arrival)                4
    Minute (MDB arrival)             48
    Second (MDB arrival)             55
    Correction number                 0
    Part of message                   1
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Quality control % conf           70

```

```

1
    BUFR SECTION 3

    Length of section 3 (bytes)      68
    Reserved                          0
    Number of data subsets            1
    Flag (data type/data compression) 128

```

Data descriptors (unexpanded)

```

1 001001
2 001002
3 002240
4 002241
5 002242
6 002243
7 002244
8 002245
9 004001
10 004002

```

11 004003  
12 004004  
13 004005  
14 004006  
15 005001  
16 006001  
17 105000  
18 031001  
19 007004  
20 010003  
21 012001  
22 011001  
23 011002  
24 105000  
25 031001  
26 007002  
27 012001  
28 013240  
29 011001  
30 011002

## Data descriptors (expanded)

1 001001 WMO BLOCK NUMBER  
2 001002 WMO STATION NUMBER  
3 002240 TYPE OF THERMODYNAMIC SENSING  
4 002241 TYPE OF ROCKET MOTOR  
5 002242 TYPE OF WIND SENSING EQUIPMENT  
6 002243 THERMODYNAMIC CORRECTION TECHNIQUE  
7 002244 WIND CORRECTION TECHNIQUE  
8 002245 METHOD OF REDUCING OF DATA  
9 004001 YEAR  
10 004002 MONTH  
11 004003 DAY  
12 004004 HOUR  
13 004005 MINUTE  
14 004006 SECOND  
15 005001 LATITUDE (HIGH ACCURACY)  
16 006001 LONGITUDE (HIGH ACCURACY)  
17 031001 DELAYED DESCRIPTOR REPLICATION FACTOR  
18 007004 PRESSURE  
19 010003 GEOPOTENTIAL  
20 012001 TEMPERATURE/DRY BULB TEMPERATURE  
21 011001 WIND DIRECTION  
22 011002 WIND SPEED  
23 007004 PRESSURE  
24 010003 GEOPOTENTIAL  
25 012001 TEMPERATURE/DRY BULB TEMPERATURE  
26 011001 WIND DIRECTION  
27 011002 WIND SPEED  
28 007004 PRESSURE  
29 010003 GEOPOTENTIAL  
30 012001 TEMPERATURE/DRY BULB TEMPERATURE  
31 011001 WIND DIRECTION  
32 011002 WIND SPEED  
33 007004 PRESSURE  
34 010003 GEOPOTENTIAL  
35 012001 TEMPERATURE/DRY BULB TEMPERATURE  
36 011001 WIND DIRECTION  
37 011002 WIND SPEED  
38 007004 PRESSURE  
39 010003 GEOPOTENTIAL  
40 012001 TEMPERATURE/DRY BULB TEMPERATURE  
41 011001 WIND DIRECTION  
42 011002 WIND SPEED  
43 007004 PRESSURE  
44 010003 GEOPOTENTIAL  
45 012001 TEMPERATURE/DRY BULB TEMPERATURE  
46 011001 WIND DIRECTION  
47 011002 WIND SPEED  
48 007004 PRESSURE  
49 010003 GEOPOTENTIAL  
50 012001 TEMPERATURE/DRY BULB TEMPERATURE  
51 011001 WIND DIRECTION  
52 011002 WIND SPEED  
53 007004 PRESSURE  
54 010003 GEOPOTENTIAL  
55 012001 TEMPERATURE/DRY BULB TEMPERATURE  
56 011001 WIND DIRECTION  
57 011002 WIND SPEED  
58 007004 PRESSURE  
59 010003 GEOPOTENTIAL  
60 012001 TEMPERATURE/DRY BULB TEMPERATURE  
61 011001 WIND DIRECTION  
62 011002 WIND SPEED  
63 007004 PRESSURE  
64 010003 GEOPOTENTIAL  
65 012001 TEMPERATURE/DRY BULB TEMPERATURE  
66 011001 WIND DIRECTION  
67 011002 WIND SPEED  
68 007004 PRESSURE  
69 010003 GEOPOTENTIAL

```
70 012001 TEMPERATURE/DRY BULB TEMPERATURE
71 011001 WIND DIRECTION
72 011002 WIND SPEED
73 007004 PRESSURE
74 010003 GEOPOTENTIAL
75 012001 TEMPERATURE/DRY BULB TEMPERATURE
76 011001 WIND DIRECTION
77 011002 WIND SPEED
78 007004 PRESSURE
79 010003 GEOPOTENTIAL
80 012001 TEMPERATURE/DRY BULB TEMPERATURE
81 011001 WIND DIRECTION
82 011002 WIND SPEED
83 007004 PRESSURE
84 010003 GEOPOTENTIAL
85 012001 TEMPERATURE/DRY BULB TEMPERATURE
86 011001 WIND DIRECTION
87 011002 WIND SPEED
88 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
89 007002 HEIGHT OR ALTITUDE
90 012001 TEMPERATURE/DRY BULB TEMPERATURE
91 013240 AIR DENSITY
92 011001 WIND DIRECTION
93 011002 WIND SPEED
94 007002 HEIGHT OR ALTITUDE
95 012001 TEMPERATURE/DRY BULB TEMPERATURE
96 013240 AIR DENSITY
97 011001 WIND DIRECTION
98 011002 WIND SPEED
99 007002 HEIGHT OR ALTITUDE
100 012001 TEMPERATURE/DRY BULB TEMPERATURE
101 013240 AIR DENSITY
102 011001 WIND DIRECTION
103 011002 WIND SPEED
104 007002 HEIGHT OR ALTITUDE
105 012001 TEMPERATURE/DRY BULB TEMPERATURE
106 013240 AIR DENSITY
107 011001 WIND DIRECTION
108 011002 WIND SPEED
109 007002 HEIGHT OR ALTITUDE
110 012001 TEMPERATURE/DRY BULB TEMPERATURE
111 013240 AIR DENSITY
112 011001 WIND DIRECTION
113 011002 WIND SPEED
114 007002 HEIGHT OR ALTITUDE
115 012001 TEMPERATURE/DRY BULB TEMPERATURE
116 013240 AIR DENSITY
117 011001 WIND DIRECTION
118 011002 WIND SPEED
119 007002 HEIGHT OR ALTITUDE
120 012001 TEMPERATURE/DRY BULB TEMPERATURE
121 013240 AIR DENSITY
122 011001 WIND DIRECTION
123 011002 WIND SPEED
124 007002 HEIGHT OR ALTITUDE
125 012001 TEMPERATURE/DRY BULB TEMPERATURE
126 013240 AIR DENSITY
127 011001 WIND DIRECTION
128 011002 WIND SPEED
129 007002 HEIGHT OR ALTITUDE
130 012001 TEMPERATURE/DRY BULB TEMPERATURE
131 013240 AIR DENSITY
132 011001 WIND DIRECTION
133 011002 WIND SPEED
134 007002 HEIGHT OR ALTITUDE
135 012001 TEMPERATURE/DRY BULB TEMPERATURE
136 013240 AIR DENSITY
137 011001 WIND DIRECTION
138 011002 WIND SPEED
139 007002 HEIGHT OR ALTITUDE
140 012001 TEMPERATURE/DRY BULB TEMPERATURE
141 013240 AIR DENSITY
142 011001 WIND DIRECTION
143 011002 WIND SPEED
144 007002 HEIGHT OR ALTITUDE
145 012001 TEMPERATURE/DRY BULB TEMPERATURE
146 013240 AIR DENSITY
147 011001 WIND DIRECTION
148 011002 WIND SPEED
149 007002 HEIGHT OR ALTITUDE
150 012001 TEMPERATURE/DRY BULB TEMPERATURE
151 013240 AIR DENSITY
152 011001 WIND DIRECTION
153 011002 WIND SPEED
154 007002 HEIGHT OR ALTITUDE
155 012001 TEMPERATURE/DRY BULB TEMPERATURE
156 013240 AIR DENSITY
157 011001 WIND DIRECTION
158 011002 WIND SPEED
159 007002 HEIGHT OR ALTITUDE
160 012001 TEMPERATURE/DRY BULB TEMPERATURE
161 013240 AIR DENSITY
162 011001 WIND DIRECTION
```

163	011002	WIND SPEED
164	007002	HEIGHT OR ALTITUDE
165	012001	TEMPERATURE/DRY BULB TEMPERATURE
166	013240	AIR DENSITY
167	011001	WIND DIRECTION
168	011002	WIND SPEED
169	007002	HEIGHT OR ALTITUDE
170	012001	TEMPERATURE/DRY BULB TEMPERATURE
171	013240	AIR DENSITY
172	011001	WIND DIRECTION
173	011002	WIND SPEED
174	007002	HEIGHT OR ALTITUDE
175	012001	TEMPERATURE/DRY BULB TEMPERATURE
176	013240	AIR DENSITY
177	011001	WIND DIRECTION
178	011002	WIND SPEED
179	007002	HEIGHT OR ALTITUDE
180	012001	TEMPERATURE/DRY BULB TEMPERATURE
181	013240	AIR DENSITY
182	011001	WIND DIRECTION
183	011002	WIND SPEED
184	007002	HEIGHT OR ALTITUDE
185	012001	TEMPERATURE/DRY BULB TEMPERATURE
186	013240	AIR DENSITY
187	011001	WIND DIRECTION
188	011002	WIND SPEED
189	007002	HEIGHT OR ALTITUDE
190	012001	TEMPERATURE/DRY BULB TEMPERATURE
191	013240	AIR DENSITY
192	011001	WIND DIRECTION
193	011002	WIND SPEED
194	007002	HEIGHT OR ALTITUDE
195	012001	TEMPERATURE/DRY BULB TEMPERATURE
196	013240	AIR DENSITY
197	011001	WIND DIRECTION
198	011002	WIND SPEED
199	007002	HEIGHT OR ALTITUDE
200	012001	TEMPERATURE/DRY BULB TEMPERATURE
201	013240	AIR DENSITY
202	011001	WIND DIRECTION
203	011002	WIND SPEED
204	007002	HEIGHT OR ALTITUDE
205	012001	TEMPERATURE/DRY BULB TEMPERATURE
206	013240	AIR DENSITY
207	011001	WIND DIRECTION
208	011002	WIND SPEED
209	007002	HEIGHT OR ALTITUDE
210	012001	TEMPERATURE/DRY BULB TEMPERATURE
211	013240	AIR DENSITY
212	011001	WIND DIRECTION
213	011002	WIND SPEED
214	007002	HEIGHT OR ALTITUDE
215	012001	TEMPERATURE/DRY BULB TEMPERATURE
216	013240	AIR DENSITY
217	011001	WIND DIRECTION
218	011002	WIND SPEED
219	007002	HEIGHT OR ALTITUDE
220	012001	TEMPERATURE/DRY BULB TEMPERATURE
221	013240	AIR DENSITY
222	011001	WIND DIRECTION
223	011002	WIND SPEED
224	007002	HEIGHT OR ALTITUDE
225	012001	TEMPERATURE/DRY BULB TEMPERATURE
226	013240	AIR DENSITY
227	011001	WIND DIRECTION
228	011002	WIND SPEED
229	007002	HEIGHT OR ALTITUDE
230	012001	TEMPERATURE/DRY BULB TEMPERATURE
231	013240	AIR DENSITY
232	011001	WIND DIRECTION
233	011002	WIND SPEED
234	007002	HEIGHT OR ALTITUDE
235	012001	TEMPERATURE/DRY BULB TEMPERATURE
236	013240	AIR DENSITY
237	011001	WIND DIRECTION
238	011002	WIND SPEED
239	007002	HEIGHT OR ALTITUDE
240	012001	TEMPERATURE/DRY BULB TEMPERATURE
241	013240	AIR DENSITY
242	011001	WIND DIRECTION
243	011002	WIND SPEED
244	007002	HEIGHT OR ALTITUDE
245	012001	TEMPERATURE/DRY BULB TEMPERATURE
246	013240	AIR DENSITY
247	011001	WIND DIRECTION
248	011002	WIND SPEED
249	007002	HEIGHT OR ALTITUDE
250	012001	TEMPERATURE/DRY BULB TEMPERATURE
251	013240	AIR DENSITY
252	011001	WIND DIRECTION
253	011002	WIND SPEED
254	007002	HEIGHT OR ALTITUDE
255	012001	TEMPERATURE/DRY BULB TEMPERATURE

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256 013240 AIR DENSITY
257 011001 WIND DIRECTION
258 011002 WIND SPEED
259 007002 HEIGHT OR ALTITUDE
260 012001 TEMPERATURE/DRY BULB TEMPERATURE
261 013240 AIR DENSITY
262 011001 WIND DIRECTION
263 011002 WIND SPEED
264 007002 HEIGHT OR ALTITUDE
265 012001 TEMPERATURE/DRY BULB TEMPERATURE
266 013240 AIR DENSITY
267 011001 WIND DIRECTION
268 011002 WIND SPEED
269 007002 HEIGHT OR ALTITUDE
270 012001 TEMPERATURE/DRY BULB TEMPERATURE
271 013240 AIR DENSITY
272 011001 WIND DIRECTION
273 011002 WIND SPEED

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BUFR SECTION 4 (DATA), SUBSET 1

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1 WMO BLOCK NUMBE          47.0000 NUMERIC
2 WMO STATION NUM          513.0000 NUMERIC
3 TYPE OF TERMODY          32.0000 CODE TABLE 2240
4 TYPE OF ROCKET           4.0000 CODE TABLE 2241
5 TYPE OF WIND SE          11.0000 CODE TABLE 2242
6 THERMODYNAMIC CO         3.0000 CODE TABLE 2243
7 WIND CORRECTION          .0000 CODE TABLE 2244
8 METHOD OF REDUC           2.0000 CODE TABLE 2245
9 YEAR                     2001.0000 YEAR
10 MONTH                    2.0000 MONTH
11 DAY                      14.0000 DAY
12 HOUR                     2.0000 HOUR
13 MINUTE                   .0000 MINUTE
14 SECOND                   .0000 SECOND
15 LATITUDE (HIGH          39.0300 DEGREE
16 LONGITUDE (HIGH         141.8300 DEGREE
17 DELAYED DESCRIP         14.0000 NUMERIC
18 PRESSURE                 7000.0000 PA
19 GEOPOTENTIAL            177500.0000 M**2/S**2
20 TEMPERATURE/DRY         213.2000 K
21 WIND DIRECTION           250.0000 DEGREE TRUE
22 WIND SPEED               47.0000 M/S
23 PRESSURE                 5000.0000 PA
24 GEOPOTENTIAL            198090.0000 M**2/S**2
25 TEMPERATURE/DRY         215.2000 K
26 WIND DIRECTION           250.0000 DEGREE TRUE
27 WIND SPEED               23.0000 M/S
28 PRESSURE                 3000.0000 PA
29 GEOPOTENTIAL            229480.0000 M**2/S**2
30 TEMPERATURE/DRY         220.2000 K
31 WIND DIRECTION           240.0000 DEGREE TRUE
32 WIND SPEED               16.0000 M/S
33 PRESSURE                 2000.0000 PA
34 GEOPOTENTIAL            254970.0000 M**2/S**2
35 TEMPERATURE/DRY         218.2000 K
36 WIND DIRECTION           220.0000 DEGREE TRUE
37 WIND SPEED               10.0000 M/S
38 PRESSURE                 1000.0000 PA
39 GEOPOTENTIAL            300080.0000 M**2/S**2
40 TEMPERATURE/DRY         227.2000 K
41 WIND DIRECTION           180.0000 DEGREE TRUE
42 WIND SPEED               5.0000 M/S
43 PRESSURE                 700.0000 PA
44 GEOPOTENTIAL            323620.0000 M**2/S**2
45 TEMPERATURE/DRY         234.2000 K
46 WIND DIRECTION           70.0000 DEGREE TRUE
47 WIND SPEED               6.0000 M/S
48 PRESSURE                 500.0000 PA
49 GEOPOTENTIAL            346170.0000 M**2/S**2
50 TEMPERATURE/DRY         236.2000 K
51 WIND DIRECTION           100.0000 DEGREE TRUE
52 WIND SPEED               8.0000 M/S
53 PRESSURE                 300.0000 PA
54 GEOPOTENTIAL            381480.0000 M**2/S**2
55 TEMPERATURE/DRY         244.2000 K
56 WIND DIRECTION           110.0000 DEGREE TRUE
57 WIND SPEED               4.0000 M/S
58 PRESSURE                 200.0000 PA
59 GEOPOTENTIAL            409920.0000 M**2/S**2
60 TEMPERATURE/DRY         251.2000 K
61 WIND DIRECTION           310.0000 DEGREE TRUE
62 WIND SPEED               1.0000 M/S
63 PRESSURE                 100.0000 PA
64 GEOPOTENTIAL            459930.0000 M**2/S**2
65 TEMPERATURE/DRY         256.2000 K
66 WIND DIRECTION           270.0000 DEGREE TRUE
67 WIND SPEED               33.0000 M/S
68 PRESSURE                 70.0000 PA
69 GEOPOTENTIAL            486410.0000 M**2/S**2
70 TEMPERATURE/DRY         258.2000 K
71 WIND DIRECTION           270.0000 DEGREE TRUE
72 WIND SPEED               44.0000 M/S

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73	PRESSURE	50.0000	PA
74	GEOPOTENTIAL	511910.0000	M**2/S**2
75	TEMPERATURE/DRY	257.2000	K
76	WIND DIRECTION	260.0000	DEGREE TRUE
77	WIND SPEED	42.0000	M/S
78	PRESSURE	40.0000	PA
79	GEOPOTENTIAL	527600.0000	M**2/S**2
80	TEMPERATURE/DRY	255.2000	K
81	WIND DIRECTION	270.0000	DEGREE TRUE
82	WIND SPEED	44.0000	M/S
83	PRESSURE	30.0000	PA
84	GEOPOTENTIAL	549170.0000	M**2/S**2
85	TEMPERATURE/DRY	252.2000	K
86	WIND DIRECTION	270.0000	DEGREE TRUE
87	WIND SPEED	45.0000	M/S
88	DELAYED DESCRIP	37.0000	NUMERIC
89	HEIGHT OR ALTIT	20000.0000	M
90	TEMPERATURE/DRY	215.2000	K
91	AIR DENSITY	.8410	KG/M**3
92	WIND DIRECTION	250.0000	DEGREE TRUE
93	WIND SPEED	27.0000	M/S
94	HEIGHT OR ALTIT	21000.0000	M
95	TEMPERATURE/DRY	212.2000	K
96	AIR DENSITY	.7270	KG/M**3
97	WIND DIRECTION	240.0000	DEGREE TRUE
98	WIND SPEED	25.0000	M/S
99	HEIGHT OR ALTIT	22000.0000	M
100	TEMPERATURE/DRY	214.2000	K
101	AIR DENSITY	.6150	KG/M**3
102	WIND DIRECTION	240.0000	DEGREE TRUE
103	WIND SPEED	24.0000	M/S
104	HEIGHT OR ALTIT	23000.0000	M
105	TEMPERATURE/DRY	222.2000	K
106	AIR DENSITY	.5070	KG/M**3
107	WIND DIRECTION	240.0000	DEGREE TRUE
108	WIND SPEED	19.0000	M/S
109	HEIGHT OR ALTIT	24000.0000	M
110	TEMPERATURE/DRY	217.2000	K
111	AIR DENSITY	.4450	KG/M**3
112	WIND DIRECTION	240.0000	DEGREE TRUE
113	WIND SPEED	15.0000	M/S
114	HEIGHT OR ALTIT	25000.0000	M
115	TEMPERATURE/DRY	220.2000	K
116	AIR DENSITY	.3760	KG/M**3
117	WIND DIRECTION	260.0000	DEGREE TRUE
118	WIND SPEED	11.0000	M/S
119	HEIGHT OR ALTIT	26000.0000	M
120	TEMPERATURE/DRY	218.2000	K
121	AIR DENSITY	.3250	KG/M**3
122	WIND DIRECTION	220.0000	DEGREE TRUE
123	WIND SPEED	10.0000	M/S
124	HEIGHT OR ALTIT	27000.0000	M
125	TEMPERATURE/DRY	223.2000	K
126	AIR DENSITY	.2730	KG/M**3
127	WIND DIRECTION	210.0000	DEGREE TRUE
128	WIND SPEED	11.0000	M/S
129	HEIGHT OR ALTIT	28000.0000	M
130	TEMPERATURE/DRY	224.2000	K
131	AIR DENSITY	.2330	KG/M**3
132	WIND DIRECTION	210.0000	DEGREE TRUE
133	WIND SPEED	9.0000	M/S
134	HEIGHT OR ALTIT	29000.0000	M
135	TEMPERATURE/DRY	226.2000	K
136	AIR DENSITY	.1990	KG/M**3
137	WIND DIRECTION	210.0000	DEGREE TRUE
138	WIND SPEED	7.0000	M/S
139	HEIGHT OR ALTIT	30000.0000	M
140	TEMPERATURE/DRY	228.2000	K
141	AIR DENSITY	.1700	KG/M**3
142	WIND DIRECTION	170.0000	DEGREE TRUE
143	WIND SPEED	5.0000	M/S
144	HEIGHT OR ALTIT	31000.0000	M
145	TEMPERATURE/DRY	227.2000	K
146	AIR DENSITY	.1480	KG/M**3
147	WIND DIRECTION	190.0000	DEGREE TRUE
148	WIND SPEED	6.0000	M/S
149	HEIGHT OR ALTIT	32000.0000	M
150	TEMPERATURE/DRY	231.2000	K
151	AIR DENSITY	.1250	KG/M**3
152	WIND DIRECTION	180.0000	DEGREE TRUE
153	WIND SPEED	4.0000	M/S
154	HEIGHT OR ALTIT	33000.0000	M
155	TEMPERATURE/DRY	234.2000	K
156	AIR DENSITY	.1070	KG/M**3
157	WIND DIRECTION	80.0000	DEGREE TRUE
158	WIND SPEED	6.0000	M/S
159	HEIGHT OR ALTIT	34000.0000	M
160	TEMPERATURE/DRY	234.2000	K
161	AIR DENSITY	.9210	KG/M**3
162	WIND DIRECTION	70.0000	DEGREE TRUE
163	WIND SPEED	5.0000	M/S
164	HEIGHT OR ALTIT	35000.0000	M
165	TEMPERATURE/DRY	235.2000	K



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166 AIR DENSITY          .7960 KG/M**3
167 WIND DIRECTION       90.0000 DEGREE TRUE
168 WIND SPEED           7.0000 M/S
169 HEIGHT OR ALTIT     36000.0000 M
170 TEMPERATURE/DRY     237.2000 K
171 AIR DENSITY          .6830 KG/M**3
172 WIND DIRECTION       100.0000 DEGREE TRUE
173 WIND SPEED           9.0000 M/S
174 HEIGHT OR ALTIT     37000.0000 M
175 TEMPERATURE/DRY     237.2000 K
176 AIR DENSITY          .5940 KG/M**3
177 WIND DIRECTION       90.0000 DEGREE TRUE
178 WIND SPEED           7.0000 M/S
179 HEIGHT OR ALTIT     38000.0000 M
180 TEMPERATURE/DRY     239.2000 K
181 AIR DENSITY          .5100 KG/M**3
182 WIND DIRECTION       90.0000 DEGREE TRUE
183 WIND SPEED           6.0000 M/S
184 HEIGHT OR ALTIT     39000.0000 M
185 TEMPERATURE/DRY     243.2000 K
186 AIR DENSITY          .4360 KG/M**3
187 WIND DIRECTION       110.0000 DEGREE TRUE
188 WIND SPEED           5.0000 M/S
189 HEIGHT OR ALTIT     40000.0000 M
190 TEMPERATURE/DRY     248.2000 K
191 AIR DENSITY          .3730 KG/M**3
192 WIND DIRECTION       30.0000 DEGREE TRUE
193 WIND SPEED           4.0000 M/S
194 HEIGHT OR ALTIT     41000.0000 M
195 TEMPERATURE/DRY     249.2000 K
196 AIR DENSITY          .3240 KG/M**3
197 WIND DIRECTION       340.0000 DEGREE TRUE
198 WIND SPEED           4.0000 M/S
199 HEIGHT OR ALTIT     42000.0000 M
200 TEMPERATURE/DRY     251.2000 K
201 AIR DENSITY          .2820 KG/M**3
202 WIND DIRECTION       320.0000 DEGREE TRUE
203 WIND SPEED           2.0000 M/S
204 HEIGHT OR ALTIT     43000.0000 M
205 TEMPERATURE/DRY     252.2000 K
206 AIR DENSITY          .2450 KG/M**3
207 WIND DIRECTION       270.0000 DEGREE TRUE
208 WIND SPEED           6.0000 M/S
209 HEIGHT OR ALTIT     44000.0000 M
210 TEMPERATURE/DRY     252.2000 K
211 AIR DENSITY          .2140 KG/M**3
212 WIND DIRECTION       250.0000 DEGREE TRUE
213 WIND SPEED           12.0000 M/S
214 HEIGHT OR ALTIT     45000.0000 M
215 TEMPERATURE/DRY     253.2000 K
216 AIR DENSITY          .1870 KG/M**3
217 WIND DIRECTION       260.0000 DEGREE TRUE
218 WIND SPEED           19.0000 M/S
219 HEIGHT OR ALTIT     46000.0000 M
220 TEMPERATURE/DRY     253.2000 K
221 AIR DENSITY          .1630 KG/M**3
222 WIND DIRECTION       270.0000 DEGREE TRUE
223 WIND SPEED           26.0000 M/S
224 HEIGHT OR ALTIT     47000.0000 M
225 TEMPERATURE/DRY     255.2000 K
226 AIR DENSITY          .1420 KG/M**3
227 WIND DIRECTION       270.0000 DEGREE TRUE
228 WIND SPEED           32.0000 M/S
229 HEIGHT OR ALTIT     48000.0000 M
230 TEMPERATURE/DRY     258.2000 K
231 AIR DENSITY          .1230 KG/M**3
232 WIND DIRECTION       270.0000 DEGREE TRUE
233 WIND SPEED           39.0000 M/S
234 HEIGHT OR ALTIT     49000.0000 M
235 TEMPERATURE/DRY     260.2000 K
236 AIR DENSITY          .1080 KG/M**3
237 WIND DIRECTION       270.0000 DEGREE TRUE
238 WIND SPEED           43.0000 M/S
239 HEIGHT OR ALTIT     50000.0000 M
240 TEMPERATURE/DRY     258.2000 K
241 AIR DENSITY          .9510 KG/M**3
242 WIND DIRECTION       270.0000 DEGREE TRUE
243 WIND SPEED           44.0000 M/S
244 HEIGHT OR ALTIT     51000.0000 M
245 TEMPERATURE/DRY     255.2000 K
246 AIR DENSITY          .8430 KG/M**3
247 WIND DIRECTION       270.0000 DEGREE TRUE
248 WIND SPEED           45.0000 M/S
249 HEIGHT OR ALTIT     52000.0000 M
250 TEMPERATURE/DRY     254.2000 K
251 AIR DENSITY          .7410 KG/M**3
252 WIND DIRECTION       270.0000 DEGREE TRUE
253 WIND SPEED           43.0000 M/S
254 HEIGHT OR ALTIT     53000.0000 M
255 TEMPERATURE/DRY     257.2000 K
256 AIR DENSITY          .6450 KG/M**3
257 WIND DIRECTION       260.0000 DEGREE TRUE
258 WIND SPEED           43.0000 M/S

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259	HEIGHT OR ALTIT	54000.0000	M
260	TEMPERATURE/DRY	256.2000	K
261	AIR DENSITY	.5670	KG/M**3
262	WIND DIRECTION	270.0000	DEGREE TRUE
263	WIND SPEED	45.0000	M/S
264	HEIGHT OR ALTIT	55000.0000	M
265	TEMPERATURE/DRY	254.2000	K
266	AIR DENSITY	.5000	KG/M**3
267	WIND DIRECTION	280.0000	DEGREE TRUE
268	WIND SPEED	42.0000	M/S
269	HEIGHT OR ALTIT	56000.0000	M
270	TEMPERATURE/DRY	253.2000	K
271	AIR DENSITY	.4400	KG/M**3
272	WIND DIRECTION	270.0000	DEGREE TRUE
273	WIND SPEED	41.0000	M/S

## 3.42 SSMI mapped data

RDB type 12, subtype 126

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	1116
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	12
Bufr message subtype	126
Version number of local table	1
Year	1
Month	2
Day	11
Hour	23
Minute	19
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
---------------------	----

#### Report Data Base Key

RDB data type	12
RDB data subtype	126
Year	2001
Month	2
Day	11
Hour	23
Minute	19
Second	0
Latitude 1	.00
Longitude 1	91.70
Latitude 2	.60
Longitude 2	108.32
Number of observations	74
Identifier	246
Total Bufr message length	1116
Day (RDB insertion)	14
Hour (RDB insertion)	1
Minute (RDB insertion)	39
Second (RDB insertion)	17
Day (MDB arrival)	14
Hour (MDB arrival)	1
Minute (MDB arrival)	35
Second (MDB arrival)	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	58
Reserved	0
Number of data subsets	74
Flag (data type/data compression)	192

#### Data descriptors (unexpanded)

1	001007
2	002195
3	004001
4	004002
5	004003
6	004004
7	004005
8	005040

9 005002  
10 006002  
11 005031  
12 006031  
13 020253  
14 013194  
15 013195  
16 011002  
17 013196  
18 020254  
19 020251  
20 020252  
21 013197  
22 012061  
23 013013  
24 013198  
25 020250

## Data descriptors (expanded)

1 001007 SATELLITE IDENTIFIER  
2 002195 TYPE OF SATELLITE INSTRUMENTATION  
3 004001 YEAR  
4 004002 MONTH  
5 004003 DAY  
6 004004 HOUR  
7 004005 MINUTE  
8 005040 ORBIT NUMBER  
9 005002 LATITUDE (COARSE ACCURACY)  
10 006002 LONGITUDE (COARSE ACCURACY)  
11 005031 ROW NUMBER  
12 006031 COLUMN NUMBER  
13 020253 SURFACE TYPE  
14 013194 TOTAL COLUMN WATER  
15 013195 RAIN RATE  
16 011002 WIND SPEED  
17 013196 ANTECEDENT PRECIPITATION INDEX  
18 020254 ICE CONCENTRATION  
19 020251 ICE AGE  
20 020252 ICE EDGE  
21 013197 TOTAL COLUMN WATER VAPOUR  
22 012061 SKIN TEMPERATURE  
23 013013 TOTAL SNOW DEPTH  
24 013198 RAIN FLAG  
25 020250 CALCULATED SURFACE TYPE

## BUFR SECTION 4 (DATA), SUBSET 1

1 SATELLITE IDENT	246.0000	CODE TABLE	1007
2 TYPE OF SATELLI	1.0000	CODE TABLE	2195
3 YEAR	1990.0000	YEAR	
4 MONTH	12.0000	MONTH	
5 DAY	31.0000	DAY	
6 HOUR	2.0000	HOUR	
7 MINUTE	5.0000	MINUTE	
8 ORBIT NUMBER	5421.0000	NUMERIC	
9 LATITUDE (COARS	.0000	DEGREE	
10 LONGITUDE (COAR	108.3200	DEGREE	
11 ROW NUMBER	9.0000	NUMERIC	
12 COLUMN NUMBER	220.0000	NUMERIC	
13 SURFACE TYPE	5.0000	CODE TABLE	20253
14 TOTAL COLUMN WA	.2000	KG/M**2	
15 RAIN RATE	.0000	KG/M**2HOUR	
16 WIND SPEED	9.6000	M/S	
17 ANTECEDENT PREC	MISSING	KG/M**2	
18 ICE CONCENTRATI	.0000	%	
19 ICE AGE	MISSING	CODE TABLE	20251
20 ICE EDGE	MISSING	CODE TABLE	20252
21 TOTAL COLUMN WA	61.5000	KG/M**2	
22 SKIN TEMPERATUR	MISSING	K	
23 TOTAL SNOW DEPT	MISSING	M	
24 RAIN FLAG	1.0000	CODE TABLE	13198
25 CALCULATED SURF	5.0000	CODE TABLE	20250

### 3.43 TRMM brightness temperatures

RDB type 2, subtype 129

BUFR Tables to be loaded B0000980601,D0000980601

#### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	4294
Bufr Edition number	3

#### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	3
Bufr message subtype	129
Version number of local table	1
Year	1
Month	2
Day	11
Hour	0
Minute	0
Version number of Master table	6
Bufr Master table	0

#### BUFR SECTION 2

Length of section 2	52
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#### Report Data Base Key

RDB data type	2
RDB data subtype	129
Year	2001
Month	2
Day	11
Hour	0
Minute	0
Second	4
Latitude 1	-37.25
Longitude 1	158.77
Latitude 2	-30.43
Longitude 2	158.77
Number of observations	208
Identifier	1022
Total Bufr message length	4294
Day (RDB insertion)	11
Hour (RDB insertion)	1
Minute (RDB insertion)	47
Second (RDB insertion)	31
Day (MDB arrival)	11
Hour (MDB arrival)	1
Minute (MDB arrival)	38
Second (MDB arrival)	45
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

#### BUFR SECTION 3

Length of section 3 (bytes)	62
Reserved	0
Number of data subsets	208
Flag (data type/data compression)	192

#### Data descriptors (unexpanded)

1	001007
2	005040
3	201133
4	005041
5	201000
6	030193
7	004001
8	004002

9 004003  
10 004004  
11 004005  
12 004006  
13 005002  
14 006002  
15 007001  
16 007024  
17 013202  
18 008003  
19 108009  
20 002197  
21 002198  
22 002104  
23 201132  
24 202129  
25 012063  
26 201000  
27 202000

## Data descriptors (expanded)

1 001007 SATELLITE IDENTIFIER  
2 005040 ORBIT NUMBER  
3 005041 SCAN LINE NUMBER  
4 030193 POSITION NUMBER ALONG SCAN  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 004006 SECOND  
11 005002 LATITUDE (COARSE ACCURACY)  
12 006002 LONGITUDE (COARSE ACCURACY)  
13 007001 HEIGHT OF STATION  
14 007024 SATELLITE ZENITH ANGLE  
15 013202 TYPE OF SURFACE  
16 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)  
17 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
18 002198 SATELLITE CHANNEL BAND WIDTH  
19 002104 ANTENNA POLARISATION  
20 012063 BRIGHTNESS TEMPERATURE  
21 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
22 002198 SATELLITE CHANNEL BAND WIDTH  
23 002104 ANTENNA POLARISATION  
24 012063 BRIGHTNESS TEMPERATURE  
25 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
26 002198 SATELLITE CHANNEL BAND WIDTH  
27 002104 ANTENNA POLARISATION  
28 012063 BRIGHTNESS TEMPERATURE  
29 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
30 002198 SATELLITE CHANNEL BAND WIDTH  
31 002104 ANTENNA POLARISATION  
32 012063 BRIGHTNESS TEMPERATURE  
33 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
34 002198 SATELLITE CHANNEL BAND WIDTH  
35 002104 ANTENNA POLARISATION  
36 012063 BRIGHTNESS TEMPERATURE  
37 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
38 002198 SATELLITE CHANNEL BAND WIDTH  
39 002104 ANTENNA POLARISATION  
40 012063 BRIGHTNESS TEMPERATURE  
41 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
42 002198 SATELLITE CHANNEL BAND WIDTH  
43 002104 ANTENNA POLARISATION  
44 012063 BRIGHTNESS TEMPERATURE  
45 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
46 002198 SATELLITE CHANNEL BAND WIDTH  
47 002104 ANTENNA POLARISATION  
48 012063 BRIGHTNESS TEMPERATURE  
49 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
50 002198 SATELLITE CHANNEL BAND WIDTH  
51 002104 ANTENNA POLARISATION  
52 012063 BRIGHTNESS TEMPERATURE

## BUFR SECTION 4 (DATA), SUBSET 1

1 SATELLITE IDENT	1022.0000	CODE TABLE	1007
2 ORBIT NUMBER		MISSING NUMERIC	
3 SCAN LINE NUMBE	1751.0000	NUMERIC	
4 POSITION NUMBER	1.0000	NUMERIC	
5 YEAR	2001.0000	YEAR	
6 MONTH	2.0000	MONTH	
7 DAY	11.0000	DAY	
8 HOUR	.0000	HOUR	
9 MINUTE	.0000	MINUTE	
10 SECOND	4.0000	SECOND	
11 LATITUDE (COARS	-30.4300	DEGREE	
12 LONGITUDE (COAR	158.7700	DEGREE	
13 HEIGHT OF STATI	.0000	M	
14 SATELLITE ZENIT	52.7500	DEGREE	
15 TYPE OF SURFACE		MISSING CODE TABLE	13202

16	VERTICAL SIGNIF	5.0000	CODE TABLE	8003
17	SATELLITE CHANN	10700000256.0000	Hz	
18	SATELLITE CHANN	100000000.0000	Hz	
19	ANTENNA POLARIS	1.0000	CODE TABLE	2104
20	BRIGHTNESS TEMP	168.4100	K	
21	SATELLITE CHANN	10700000256.0000	Hz	
22	SATELLITE CHANN	100000000.0000	Hz	
23	ANTENNA POLARIS	.0000	CODE TABLE	2104
24	BRIGHTNESS TEMP	87.4200	K	
25	SATELLITE CHANN	19399999488.0000	Hz	
26	SATELLITE CHANN	500000000.0000	Hz	
27	ANTENNA POLARIS	1.0000	CODE TABLE	2104
28	BRIGHTNESS TEMP	197.4300	K	
29	SATELLITE CHANN	19399999488.0000	Hz	
30	SATELLITE CHANN	500000000.0000	Hz	
31	ANTENNA POLARIS	.0000	CODE TABLE	2104
32	BRIGHTNESS TEMP	129.9100	K	
33	SATELLITE CHANN	21300000768.0000	Hz	
34	SATELLITE CHANN	200000000.0000	Hz	
35	ANTENNA POLARIS	1.0000	CODE TABLE	2104
36	BRIGHTNESS TEMP	220.4300	K	
37	SATELLITE CHANN	36999999488.0000	Hz	
38	SATELLITE CHANN	2000000000.0000	Hz	
39	ANTENNA POLARIS	1.0000	CODE TABLE	2104
40	BRIGHTNESS TEMP	212.0200	K	
41	SATELLITE CHANN	36999999488.0000	Hz	
42	SATELLITE CHANN	2000000000.0000	Hz	
43	ANTENNA POLARIS	.0000	CODE TABLE	2104
44	BRIGHTNESS TEMP	147.6800	K	
45	SATELLITE CHANN	85500002304.0000	Hz	
46	SATELLITE CHANN	3000000000.0000	Hz	
47	ANTENNA POLARIS	1.0000	CODE TABLE	2104
48	BRIGHTNESS TEMP	258.4600	K	
49	SATELLITE CHANN	85500002304.0000	Hz	
50	SATELLITE CHANN	3000000000.0000	Hz	
51	ANTENNA POLARIS	.0000	CODE TABLE	2104
52	BRIGHTNESS TEMP	222.9800	K	

### 3.44 TRMR rain data

RDB type 2, subtype 130

BUFR Tables to be loaded B0000980601,D0000980601

#### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	1092
Bufr Edition number	3

#### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	3
Bufr message subtype	130
Version number of local table	1
Year	1
Month	2
Day	11
Hour	1
Minute	57
Version number of Master table	6
Bufr Master table	0

#### BUFR SECTION 2

Length of section 2	52
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#### Report Data Base Key

RDB data type	2
RDB data subtype	130
Year	2001
Month	2
Day	11
Hour	1
Minute	57
Second	33
Latitude 1	12.68
Longitude 1	-136.79
Latitude 2	18.45
Longitude 2	-136.79
Number of observations	208
Identifier	1022
Total Bufr message length	1092
Day (RDB insertion)	11
Hour (RDB insertion)	4
Minute (RDB insertion)	40
Second (RDB insertion)	2
Day (MDB arrival)	11
Hour (MDB arrival)	4
Minute (MDB arrival)	36
Second (MDB arrival)	21
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

#### BUFR SECTION 3

Length of section 3 (bytes)	56
Reserved	0
Number of data subsets	208
Flag (data type/data compression)	192

#### Data descriptors (unexpanded)

1	001007
2	005040
3	201133
4	005041
5	201000
6	030193
7	004001
8	004002



```

9  004003
10 004004
11 004005
12 004006
13 005002
14 006002
15 201132
16 007001
17 201000
18 013202
19 013209
20 013208
21 202130
22 013205
23 202000
24 013206

```

## Data descriptors (expanded)

```

1  001007  SATELLITE IDENTIFIER
2  005040  ORBIT NUMBER
3  005041  SCAN LINE NUMBER
4  030193  POSITION NUMBER ALONG SCAN
5  004001  YEAR
6  004002  MONTH
7  004003  DAY
8  004004  HOUR
9  004005  MINUTE
10 004006  SECOND
11 005002  LATITUDE (COARSE ACCURACY)
12 006002  LONGITUDE (COARSE ACCURACY)
13 007001  HEIGHT OF STATION
14 013202  TYPE OF SURFACE
15 013209  RAIN POSSIBILITY
16 013208  SURFACE RAIN RATE ( INSTANTANEOUS )
17 013205  CLOUD LIQUID WATER PATH
18 013206  TOTAL PRECIPITATION ICE CONTENT

```

## BUFR SECTION 4 (DATA), SUBSET 1

```

1 SATELLITE IDENT      1022.0000 CODE TABLE  1007
2 ORBIT NUMBER         MISSING NUMERIC
3 SCAN LINE NUMBE      763.0000 NUMERIC
4 POSITION NUMBER        1.0000 NUMERIC
5 YEAR                 2001.0000 YEAR
6 MONTH                2.0000 MONTH
7 DAY                  11.0000 DAY
8 HOUR                 1.0000 HOUR
9 MINUTE               57.0000 MINUTE
10 SECOND              33.0000 SECOND
11 LATITUDE (COARS     18.4200 DEGREE
12 LONGITUDE (COAR     -136.7900 DEGREE
13 HEIGHT OF STATI     350000.0000 M
14 TYPE OF SURFACE      MISSING CODE TABLE  13202
15 RAIN POSSIBILIT      10.0000 NUMERIC
16 SURFACE RAIN RA      .0000 KG/M**2*S
17 CLOUD LIQUID WA      .0000 KG/M**2
18 TOTAL PRECIPITA      .0000 KG/M**2

```

### 3.45 Driftr oceanographic

RDB type 6, subtype 131

BUFR Tables to be loaded B0000980601,D0000980601

#### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	638
Bufr Edition number	3

#### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	31
Bufr message subtype	131
Version number of local table	1
Year	1
Month	2
Day	12
Hour	8
Minute	42
Version number of Master table	6
Bufr Master table	0

#### BUFR SECTION 2

Length of section 2	52
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#### Report Data Base Key

RDB data type	6
RDB data subtype	131
Year	2001
Month	2
Day	12
Hour	8
Minute	42
Second	0
Latitude 1	38.03
Longitude 1	167.74
Identifier	29005
Total Bufr message length	638
Day (RDB insertion)	15
Hour (RDB insertion)	6
Minute (RDB insertion)	33
Second (RDB insertion)	7
Day (MDB arrival)	15
Hour (MDB arrival)	6
Minute (MDB arrival)	31
Second (MDB arrival)	26
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

#### BUFR SECTION 3

Length of section 3 (bytes)	34
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

#### Data descriptors (unexpanded)

1	301035
2	022001
3	022011
4	022021
5	306004
6	306005
7	222000
8	101184
9	031031
10	001031
11	001201

12 101184  
13 033007

## Data descriptors (expanded)

1	001005	BUOY/PLATFORM IDENTIFIER
2	001012	DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM
3	001013	SPEED OF MOTION OF MOVING OBSERVING PLATFORM
4	002001	TYPE OF STATION
5	004001	YEAR
6	004002	MONTH
7	004003	DAY
8	004004	HOURL
9	004005	MINUTE
10	005002	LATITUDE (COARSE ACCURACY)
11	006002	LONGITUDE (COARSE ACCURACY)
12	022001	DIRECTION OF WAVES
13	022011	PERIOD OF WAVES
14	022021	HEIGHT OF WAVES
15	002032	INDICATOR FOR DIGITIZATION
16	002033	METHOD OF SALINITY/DEPTH MEASUREMENT
17	031001	DELAYED DESCRIPTOR REPLICATION FACTOR
18	007062	DEPTH BELOW SEA/WATER SURFACE
19	022043	SEA/WATER TEMPERATURE
20	022062	SALINITY
21	007062	DEPTH BELOW SEA/WATER SURFACE
22	022043	SEA/WATER TEMPERATURE
23	022062	SALINITY
24	007062	DEPTH BELOW SEA/WATER SURFACE
25	022043	SEA/WATER TEMPERATURE
26	022062	SALINITY
27	007062	DEPTH BELOW SEA/WATER SURFACE
28	022043	SEA/WATER TEMPERATURE
29	022062	SALINITY
30	007062	DEPTH BELOW SEA/WATER SURFACE
31	022043	SEA/WATER TEMPERATURE
32	022062	SALINITY
33	007062	DEPTH BELOW SEA/WATER SURFACE
34	022043	SEA/WATER TEMPERATURE
35	022062	SALINITY
36	007062	DEPTH BELOW SEA/WATER SURFACE
37	022043	SEA/WATER TEMPERATURE
38	022062	SALINITY
39	007062	DEPTH BELOW SEA/WATER SURFACE
40	022043	SEA/WATER TEMPERATURE
41	022062	SALINITY
42	007062	DEPTH BELOW SEA/WATER SURFACE
43	022043	SEA/WATER TEMPERATURE
44	022062	SALINITY
45	007062	DEPTH BELOW SEA/WATER SURFACE
46	022043	SEA/WATER TEMPERATURE
47	022062	SALINITY
48	007062	DEPTH BELOW SEA/WATER SURFACE
49	022043	SEA/WATER TEMPERATURE
50	022062	SALINITY
51	007062	DEPTH BELOW SEA/WATER SURFACE
52	022043	SEA/WATER TEMPERATURE
53	022062	SALINITY
54	007062	DEPTH BELOW SEA/WATER SURFACE
55	022043	SEA/WATER TEMPERATURE
56	022062	SALINITY
57	007062	DEPTH BELOW SEA/WATER SURFACE
58	022043	SEA/WATER TEMPERATURE
59	022062	SALINITY
60	007062	DEPTH BELOW SEA/WATER SURFACE
61	022043	SEA/WATER TEMPERATURE
62	022062	SALINITY
63	007062	DEPTH BELOW SEA/WATER SURFACE
64	022043	SEA/WATER TEMPERATURE
65	022062	SALINITY
66	007062	DEPTH BELOW SEA/WATER SURFACE
67	022043	SEA/WATER TEMPERATURE
68	022062	SALINITY
69	007062	DEPTH BELOW SEA/WATER SURFACE
70	022043	SEA/WATER TEMPERATURE
71	022062	SALINITY
72	007062	DEPTH BELOW SEA/WATER SURFACE
73	022043	SEA/WATER TEMPERATURE
74	022062	SALINITY
75	007062	DEPTH BELOW SEA/WATER SURFACE
76	022043	SEA/WATER TEMPERATURE
77	022062	SALINITY
78	007062	DEPTH BELOW SEA/WATER SURFACE
79	022043	SEA/WATER TEMPERATURE
80	022062	SALINITY
81	007062	DEPTH BELOW SEA/WATER SURFACE
82	022043	SEA/WATER TEMPERATURE
83	022062	SALINITY
84	007062	DEPTH BELOW SEA/WATER SURFACE
85	022043	SEA/WATER TEMPERATURE
86	022062	SALINITY
87	007062	DEPTH BELOW SEA/WATER SURFACE

88	022043	SEA/WATER TEMPERATURE
89	022062	SALINITY
90	007062	DEPTH BELOW SEA/WATER SURFACE
91	022043	SEA/WATER TEMPERATURE
92	022062	SALINITY
93	007062	DEPTH BELOW SEA/WATER SURFACE
94	022043	SEA/WATER TEMPERATURE
95	022062	SALINITY
96	007062	DEPTH BELOW SEA/WATER SURFACE
97	022043	SEA/WATER TEMPERATURE
98	022062	SALINITY
99	007062	DEPTH BELOW SEA/WATER SURFACE
100	022043	SEA/WATER TEMPERATURE
101	022062	SALINITY
102	007062	DEPTH BELOW SEA/WATER SURFACE
103	022043	SEA/WATER TEMPERATURE
104	022062	SALINITY
105	007062	DEPTH BELOW SEA/WATER SURFACE
106	022043	SEA/WATER TEMPERATURE
107	022062	SALINITY
108	007062	DEPTH BELOW SEA/WATER SURFACE
109	022043	SEA/WATER TEMPERATURE
110	022062	SALINITY
111	007062	DEPTH BELOW SEA/WATER SURFACE
112	022043	SEA/WATER TEMPERATURE
113	022062	SALINITY
114	007062	DEPTH BELOW SEA/WATER SURFACE
115	022043	SEA/WATER TEMPERATURE
116	022062	SALINITY
117	007062	DEPTH BELOW SEA/WATER SURFACE
118	022043	SEA/WATER TEMPERATURE
119	022062	SALINITY
120	007062	DEPTH BELOW SEA/WATER SURFACE
121	022043	SEA/WATER TEMPERATURE
122	022062	SALINITY
123	007062	DEPTH BELOW SEA/WATER SURFACE
124	022043	SEA/WATER TEMPERATURE
125	022062	SALINITY
126	007062	DEPTH BELOW SEA/WATER SURFACE
127	022043	SEA/WATER TEMPERATURE
128	022062	SALINITY
129	007062	DEPTH BELOW SEA/WATER SURFACE
130	022043	SEA/WATER TEMPERATURE
131	022062	SALINITY
132	007062	DEPTH BELOW SEA/WATER SURFACE
133	022043	SEA/WATER TEMPERATURE
134	022062	SALINITY
135	007062	DEPTH BELOW SEA/WATER SURFACE
136	022043	SEA/WATER TEMPERATURE
137	022062	SALINITY
138	007062	DEPTH BELOW SEA/WATER SURFACE
139	022043	SEA/WATER TEMPERATURE
140	022062	SALINITY
141	007062	DEPTH BELOW SEA/WATER SURFACE
142	022043	SEA/WATER TEMPERATURE
143	022062	SALINITY
144	007062	DEPTH BELOW SEA/WATER SURFACE
145	022043	SEA/WATER TEMPERATURE
146	022062	SALINITY
147	007062	DEPTH BELOW SEA/WATER SURFACE
148	022043	SEA/WATER TEMPERATURE
149	022062	SALINITY
150	007062	DEPTH BELOW SEA/WATER SURFACE
151	022043	SEA/WATER TEMPERATURE
152	022062	SALINITY
153	007062	DEPTH BELOW SEA/WATER SURFACE
154	022043	SEA/WATER TEMPERATURE
155	022062	SALINITY
156	007062	DEPTH BELOW SEA/WATER SURFACE
157	022043	SEA/WATER TEMPERATURE
158	022062	SALINITY
159	007062	DEPTH BELOW SEA/WATER SURFACE
160	022043	SEA/WATER TEMPERATURE
161	022062	SALINITY
162	007062	DEPTH BELOW SEA/WATER SURFACE
163	022043	SEA/WATER TEMPERATURE
164	022062	SALINITY
165	002031	DURATION AND TIME OF CURRENT MEASUREMENT
166	031001	DELAYED DESCRIPTOR REPLICATION FACTOR
167	007062	DEPTH BELOW SEA/WATER SURFACE
168	022004	DIRECTION OF CURRENT
169	022031	SPEED OF CURRENT
170	007062	DEPTH BELOW SEA/WATER SURFACE
171	022004	DIRECTION OF CURRENT
172	022031	SPEED OF CURRENT
173	007062	DEPTH BELOW SEA/WATER SURFACE
174	022004	DIRECTION OF CURRENT
175	022031	SPEED OF CURRENT
176	007062	DEPTH BELOW SEA/WATER SURFACE
177	022004	DIRECTION OF CURRENT
178	022031	SPEED OF CURRENT
179	007062	DEPTH BELOW SEA/WATER SURFACE
180	022004	DIRECTION OF CURRENT

181	022031	SPEED OF CURRENT
182	007062	DEPTH BELOW SEA/WATER SURFACE
183	022004	DIRECTION OF CURRENT
184	022031	SPEED OF CURRENT
185	222000	QUALITY INFORMATION FOLLOW
186	031031	DATA PRESENT INDICATOR
187	031031	DATA PRESENT INDICATOR
188	031031	DATA PRESENT INDICATOR
189	031031	DATA PRESENT INDICATOR
190	031031	DATA PRESENT INDICATOR
191	031031	DATA PRESENT INDICATOR
192	031031	DATA PRESENT INDICATOR
193	031031	DATA PRESENT INDICATOR
194	031031	DATA PRESENT INDICATOR
195	031031	DATA PRESENT INDICATOR
196	031031	DATA PRESENT INDICATOR
197	031031	DATA PRESENT INDICATOR
198	031031	DATA PRESENT INDICATOR
199	031031	DATA PRESENT INDICATOR
200	031031	DATA PRESENT INDICATOR
201	031031	DATA PRESENT INDICATOR
202	031031	DATA PRESENT INDICATOR
203	031031	DATA PRESENT INDICATOR
204	031031	DATA PRESENT INDICATOR
205	031031	DATA PRESENT INDICATOR
206	031031	DATA PRESENT INDICATOR
207	031031	DATA PRESENT INDICATOR
208	031031	DATA PRESENT INDICATOR
209	031031	DATA PRESENT INDICATOR
210	031031	DATA PRESENT INDICATOR
211	031031	DATA PRESENT INDICATOR
212	031031	DATA PRESENT INDICATOR
213	031031	DATA PRESENT INDICATOR
214	031031	DATA PRESENT INDICATOR
215	031031	DATA PRESENT INDICATOR
216	031031	DATA PRESENT INDICATOR
217	031031	DATA PRESENT INDICATOR
218	031031	DATA PRESENT INDICATOR
219	031031	DATA PRESENT INDICATOR
220	031031	DATA PRESENT INDICATOR
221	031031	DATA PRESENT INDICATOR
222	031031	DATA PRESENT INDICATOR
223	031031	DATA PRESENT INDICATOR
224	031031	DATA PRESENT INDICATOR
225	031031	DATA PRESENT INDICATOR
226	031031	DATA PRESENT INDICATOR
227	031031	DATA PRESENT INDICATOR
228	031031	DATA PRESENT INDICATOR
229	031031	DATA PRESENT INDICATOR
230	031031	DATA PRESENT INDICATOR
231	031031	DATA PRESENT INDICATOR
232	031031	DATA PRESENT INDICATOR
233	031031	DATA PRESENT INDICATOR
234	031031	DATA PRESENT INDICATOR
235	031031	DATA PRESENT INDICATOR
236	031031	DATA PRESENT INDICATOR
237	031031	DATA PRESENT INDICATOR
238	031031	DATA PRESENT INDICATOR
239	031031	DATA PRESENT INDICATOR
240	031031	DATA PRESENT INDICATOR
241	031031	DATA PRESENT INDICATOR
242	031031	DATA PRESENT INDICATOR
243	031031	DATA PRESENT INDICATOR
244	031031	DATA PRESENT INDICATOR
245	031031	DATA PRESENT INDICATOR
246	031031	DATA PRESENT INDICATOR
247	031031	DATA PRESENT INDICATOR
248	031031	DATA PRESENT INDICATOR
249	031031	DATA PRESENT INDICATOR
250	031031	DATA PRESENT INDICATOR
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ECMWF Technical Notes

367 031031 DATA PRESENT INDICATOR  
368 031031 DATA PRESENT INDICATOR  
369 031031 DATA PRESENT INDICATOR  
370 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
371 001201 GENERATING APPLICATION  
372 033007 % CONFIDENCE  
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BUFR SECTION 4 (DATA), SUBSET 1

1	BUOY/PLATFORM I	29005.0000	NUMERIC
2	DIRECTION OF MO	MISSING	DEGREE TRUE
3	SPEED OF MOTION	.0000	M/S
4	TYPE OF STATION	MISSING	CODE TABLE 2001
5	YEAR	2001.0000	YEAR
6	MONTH	2.0000	MONTH
7	DAY	12.0000	DAY
8	HOUR	8.0000	HOUR
9	MINUTE	42.0000	MINUTE
10	LATITUDE (COARS	38.0300	DEGREE
11	LONGITUDE (COAR	167.7400	DEGREE
12	DIRECTION OF WA	MISSING	DEGREE TRUE
13	PERIOD OF WAVES	MISSING	S
14	HEIGHT OF WAVES	MISSING	M
15	INDICATOR FOR D	MISSING	CODE TABLE 2032
16	METHOD OF SALIN	MISSING	CODE TABLE 2033
17	DELAYED DESCRIP	49.0000	NUMERIC
18	DEPTH BELOW SEA	.0000	M
19	SEA/WATER TEMPE	285.0200	K
20	SALINITY	MISSING	%.
21	DEPTH BELOW SEA	5.0000	M
22	SEA/WATER TEMPE	285.0300	K
23	SALINITY	MISSING	%.
24	DEPTH BELOW SEA	10.0000	M
25	SEA/WATER TEMPE	285.0400	K
26	SALINITY	MISSING	%.
27	DEPTH BELOW SEA	15.0000	M
28	SEA/WATER TEMPE	285.0400	K
29	SALINITY	MISSING	%.
30	DEPTH BELOW SEA	21.0000	M
31	SEA/WATER TEMPE	285.0300	K
32	SALINITY	MISSING	%.
33	DEPTH BELOW SEA	26.0000	M
34	SEA/WATER TEMPE	285.0300	K
35	SALINITY	MISSING	%.
36	DEPTH BELOW SEA	31.0000	M
37	SEA/WATER TEMPE	285.0400	K
38	SALINITY	MISSING	%.
39	DEPTH BELOW SEA	36.0000	M
40	SEA/WATER TEMPE	285.0400	K
41	SALINITY	MISSING	%.
42	DEPTH BELOW SEA	41.0000	M
43	SEA/WATER TEMPE	285.0400	K
44	SALINITY	MISSING	%.
45	DEPTH BELOW SEA	46.0000	M
46	SEA/WATER TEMPE	285.0300	K
47	SALINITY	MISSING	%.
48	DEPTH BELOW SEA	51.0000	M
49	SEA/WATER TEMPE	285.0200	K
50	SALINITY	MISSING	%.
51	DEPTH BELOW SEA	57.0000	M
52	SEA/WATER TEMPE	285.0200	K
53	SALINITY	MISSING	%.
54	DEPTH BELOW SEA	62.0000	M
55	SEA/WATER TEMPE	285.0200	K
56	SALINITY	MISSING	%.
57	DEPTH BELOW SEA	67.0000	M
58	SEA/WATER TEMPE	284.9900	K
59	SALINITY	MISSING	%.
60	DEPTH BELOW SEA	72.0000	M
61	SEA/WATER TEMPE	284.9700	K
62	SALINITY	MISSING	%.
63	DEPTH BELOW SEA	77.0000	M
64	SEA/WATER TEMPE	284.9700	K
65	SALINITY	MISSING	%.
66	DEPTH BELOW SEA	82.0000	M
67	SEA/WATER TEMPE	284.9500	K
68	SALINITY	MISSING	%.
69	DEPTH BELOW SEA	87.0000	M
70	SEA/WATER TEMPE	284.8600	K
71	SALINITY	MISSING	%.
72	DEPTH BELOW SEA	93.0000	M
73	SEA/WATER TEMPE	284.7000	K
74	SALINITY	MISSING	%.
75	DEPTH BELOW SEA	98.0000	M
76	SEA/WATER TEMPE	284.5000	K
77	SALINITY	MISSING	%.
78	DEPTH BELOW SEA	103.0000	M
79	SEA/WATER TEMPE	284.2000	K
80	SALINITY	MISSING	%.
81	DEPTH BELOW SEA	108.0000	M
82	SEA/WATER TEMPE	284.0200	K
83	SALINITY	MISSING	%.
84	DEPTH BELOW SEA	113.0000	M
85	SEA/WATER TEMPE	283.9100	K
86	SALINITY	MISSING	%.
87	DEPTH BELOW SEA	118.0000	M

88	SEA/WATER TEMPE	283.8100	K
89	SALINITY	MISSING	%.
90	DEPTH BELOW SEA	123.0000	M
91	SEA/WATER TEMPE	283.7700	K
92	SALINITY	MISSING	%.
93	DEPTH BELOW SEA	129.0000	M
94	SEA/WATER TEMPE	283.6000	K
95	SALINITY	MISSING	%.
96	DEPTH BELOW SEA	134.0000	M
97	SEA/WATER TEMPE	283.5100	K
98	SALINITY	MISSING	%.
99	DEPTH BELOW SEA	139.0000	M
100	SEA/WATER TEMPE	283.4500	K
101	SALINITY	MISSING	%.
102	DEPTH BELOW SEA	144.0000	M
103	SEA/WATER TEMPE	283.3800	K
104	SALINITY	MISSING	%.
105	DEPTH BELOW SEA	149.0000	M
106	SEA/WATER TEMPE	283.3000	K
107	SALINITY	MISSING	%.
108	DEPTH BELOW SEA	154.0000	M
109	SEA/WATER TEMPE	283.2500	K
110	SALINITY	MISSING	%.
111	DEPTH BELOW SEA	159.0000	M
112	SEA/WATER TEMPE	283.2400	K
113	SALINITY	MISSING	%.
114	DEPTH BELOW SEA	164.0000	M
115	SEA/WATER TEMPE	283.2100	K
116	SALINITY	MISSING	%.
117	DEPTH BELOW SEA	170.0000	M
118	SEA/WATER TEMPE	282.9800	K
119	SALINITY	MISSING	%.
120	DEPTH BELOW SEA	175.0000	M
121	SEA/WATER TEMPE	282.8300	K
122	SALINITY	MISSING	%.
123	DEPTH BELOW SEA	180.0000	M
124	SEA/WATER TEMPE	282.7600	K
125	SALINITY	MISSING	%.
126	DEPTH BELOW SEA	185.0000	M
127	SEA/WATER TEMPE	282.6900	K
128	SALINITY	MISSING	%.
129	DEPTH BELOW SEA	190.0000	M
130	SEA/WATER TEMPE	282.6100	K
131	SALINITY	MISSING	%.
132	DEPTH BELOW SEA	195.0000	M
133	SEA/WATER TEMPE	282.5200	K
134	SALINITY	MISSING	%.
135	DEPTH BELOW SEA	200.0000	M
136	SEA/WATER TEMPE	282.4600	K
137	SALINITY	MISSING	%.
138	DEPTH BELOW SEA	206.0000	M
139	SEA/WATER TEMPE	282.4400	K
140	SALINITY	MISSING	%.
141	DEPTH BELOW SEA	211.0000	M
142	SEA/WATER TEMPE	282.3900	K
143	SALINITY	MISSING	%.
144	DEPTH BELOW SEA	216.0000	M
145	SEA/WATER TEMPE	282.3500	K
146	SALINITY	MISSING	%.
147	DEPTH BELOW SEA	221.0000	M
148	SEA/WATER TEMPE	282.3200	K
149	SALINITY	MISSING	%.
150	DEPTH BELOW SEA	226.0000	M
151	SEA/WATER TEMPE	282.3400	K
152	SALINITY	MISSING	%.
153	DEPTH BELOW SEA	231.0000	M
154	SEA/WATER TEMPE	282.3600	K
155	SALINITY	MISSING	%.
156	DEPTH BELOW SEA	236.0000	M
157	SEA/WATER TEMPE	282.2800	K
158	SALINITY	MISSING	%.
159	DEPTH BELOW SEA	242.0000	M
160	SEA/WATER TEMPE	282.2500	K
161	SALINITY	MISSING	%.
162	DEPTH BELOW SEA	247.0000	M
163	SEA/WATER TEMPE	282.1600	K
164	SALINITY	MISSING	%.
165	DURATION AND TI	2.0000	CODE TABLE 2031
166	DELAYED DESCRIP	6.0000	NUMERIC
167	DEPTH BELOW SEA	3.0000	M
168	DIRECTION OF CU	436.0000	DEGREE TRUE
169	SPEED OF CURREN	MISSING	M/S
170	DEPTH BELOW SEA	2.0000	M
171	DIRECTION OF CU	478.0000	DEGREE TRUE
172	SPEED OF CURREN	.0300	M/S
173	DEPTH BELOW SEA	3.0000	M
174	DIRECTION OF CU	86.0000	DEGREE TRUE
175	SPEED OF CURREN	MISSING	M/S
176	DEPTH BELOW SEA	2.0000	M
177	DIRECTION OF CU	166.0000	DEGREE TRUE
178	SPEED OF CURREN	.0300	M/S
179	DEPTH BELOW SEA	70.0000	M
180	DIRECTION OF CU	MISSING	DEGREE TRUE

181	SPEED OF CURREN	70.0000	M/S
182	DEPTH BELOW SEA	MISSING	M
183	DIRECTION OF CU	70.0000	DEGREE TRUE
184	SPEED OF CURREN	70.0000	M/S
185	QUALITY INFORMA	.0000	
186	DATA PRESENT IN	.0000	NUMERIC
187	DATA PRESENT IN	.0000	NUMERIC
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367	DATA PRESENT IN	.0000	NUMERIC	
368	DATA PRESENT IN	.0000	NUMERIC	
369	DATA PRESENT IN	.0000	NUMERIC	
370	IDENTIFICATION	98.0000	CODE TABLE	1031
371	GENERATING APPL	1.0000	CODE TABLE	1201
372	% CONFIDENCE	70.0000	NUMERIC	
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458	% CONFIDENCE	70.0000	NUMERIC	
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ECMWF Technical Notes



553	%	CONFIDENCE	70.0000	NUMERIC
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## 3.46 Bathy oceanographic

RDB type 6, subtype 132

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	426
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	31
Bufr message subtype	132
Version number of local table	1
Year	1
Month	2
Day	12
Hour	3
Minute	6
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
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### Report Data Base Key

RDB data type	6
RDB data subtype	132
Year	2001
Month	2
Day	12
Hour	3
Minute	6
Second	0
Latitude 1	40.40
Longitude 1	145.50
Identifier	JDWX
Total Bufr message length	426
Day (RDB insertion)	12
Hour (RDB insertion)	5
Minute (RDB insertion)	52
Second (RDB insertion)	16
Day (MDB arrival)	12
Hour (MDB arrival)	5
Minute (MDB arrival)	52
Second (MDB arrival)	2
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	26
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

### Data descriptors (unexpanded)

1	315001
2	306002
3	222000
4	101111
5	031031
6	001031
7	001201
8	101111
9	033007



## Data descriptors (expanded)

1	001011	SHIP OR MOBILE LAND STATION IDENTIFIER
2	004001	YEAR
3	004002	MONTH
4	004003	DAY
5	004004	HOURL
6	004005	MINUTE
7	005002	LATITUDE (COARSE ACCURACY)
8	006002	LONGITUDE (COARSE ACCURACY)
9	002032	INDICATOR FOR DIGITIZATION
10	031001	DELAYED DESCRIPTOR REPLICATION FACTOR
11	007062	DEPTH BELOW SEA/WATER SURFACE
12	022042	SEA/WATER TEMPERATURE
13	007062	DEPTH BELOW SEA/WATER SURFACE
14	022042	SEA/WATER TEMPERATURE
15	007062	DEPTH BELOW SEA/WATER SURFACE
16	022042	SEA/WATER TEMPERATURE
17	007062	DEPTH BELOW SEA/WATER SURFACE
18	022042	SEA/WATER TEMPERATURE
19	007062	DEPTH BELOW SEA/WATER SURFACE
20	022042	SEA/WATER TEMPERATURE
21	007062	DEPTH BELOW SEA/WATER SURFACE
22	022042	SEA/WATER TEMPERATURE
23	007062	DEPTH BELOW SEA/WATER SURFACE
24	022042	SEA/WATER TEMPERATURE
25	007062	DEPTH BELOW SEA/WATER SURFACE
26	022042	SEA/WATER TEMPERATURE
27	007062	DEPTH BELOW SEA/WATER SURFACE
28	022042	SEA/WATER TEMPERATURE
29	007062	DEPTH BELOW SEA/WATER SURFACE
30	022042	SEA/WATER TEMPERATURE
31	007062	DEPTH BELOW SEA/WATER SURFACE
32	022042	SEA/WATER TEMPERATURE
33	007062	DEPTH BELOW SEA/WATER SURFACE
34	022042	SEA/WATER TEMPERATURE
35	007062	DEPTH BELOW SEA/WATER SURFACE
36	022042	SEA/WATER TEMPERATURE
37	007062	DEPTH BELOW SEA/WATER SURFACE
38	022042	SEA/WATER TEMPERATURE
39	007062	DEPTH BELOW SEA/WATER SURFACE
40	022042	SEA/WATER TEMPERATURE
41	007062	DEPTH BELOW SEA/WATER SURFACE
42	022042	SEA/WATER TEMPERATURE
43	007062	DEPTH BELOW SEA/WATER SURFACE
44	022042	SEA/WATER TEMPERATURE
45	007062	DEPTH BELOW SEA/WATER SURFACE
46	022042	SEA/WATER TEMPERATURE
47	007062	DEPTH BELOW SEA/WATER SURFACE
48	022042	SEA/WATER TEMPERATURE
49	007062	DEPTH BELOW SEA/WATER SURFACE
50	022042	SEA/WATER TEMPERATURE
51	007062	DEPTH BELOW SEA/WATER SURFACE
52	022042	SEA/WATER TEMPERATURE
53	007062	DEPTH BELOW SEA/WATER SURFACE
54	022042	SEA/WATER TEMPERATURE
55	007062	DEPTH BELOW SEA/WATER SURFACE
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57	007062	DEPTH BELOW SEA/WATER SURFACE
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59	007062	DEPTH BELOW SEA/WATER SURFACE
60	022042	SEA/WATER TEMPERATURE
61	007062	DEPTH BELOW SEA/WATER SURFACE
62	022042	SEA/WATER TEMPERATURE
63	007062	DEPTH BELOW SEA/WATER SURFACE
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67	007062	DEPTH BELOW SEA/WATER SURFACE
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69	007062	DEPTH BELOW SEA/WATER SURFACE
70	022042	SEA/WATER TEMPERATURE
71	007062	DEPTH BELOW SEA/WATER SURFACE
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73	007062	DEPTH BELOW SEA/WATER SURFACE
74	022042	SEA/WATER TEMPERATURE
75	007062	DEPTH BELOW SEA/WATER SURFACE
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87	007062	DEPTH BELOW SEA/WATER SURFACE
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89	007062	DEPTH BELOW SEA/WATER SURFACE
90	022042	SEA/WATER TEMPERATURE
91	007062	DEPTH BELOW SEA/WATER SURFACE

92	022042	SEA/WATER TEMPERATURE
93	007062	DEPTH BELOW SEA/WATER SURFACE
94	022042	SEA/WATER TEMPERATURE
95	007062	DEPTH BELOW SEA/WATER SURFACE
96	022042	SEA/WATER TEMPERATURE
97	007062	DEPTH BELOW SEA/WATER SURFACE
98	022042	SEA/WATER TEMPERATURE
99	007062	DEPTH BELOW SEA/WATER SURFACE
100	022042	SEA/WATER TEMPERATURE
101	007062	DEPTH BELOW SEA/WATER SURFACE
102	022042	SEA/WATER TEMPERATURE
103	007062	DEPTH BELOW SEA/WATER SURFACE
104	022042	SEA/WATER TEMPERATURE
105	007062	DEPTH BELOW SEA/WATER SURFACE
106	022042	SEA/WATER TEMPERATURE
107	007062	DEPTH BELOW SEA/WATER SURFACE
108	022042	SEA/WATER TEMPERATURE
109	002031	DURATION AND TIME OF CURRENT MEASUREMENT
110	022004	DIRECTION OF CURRENT
111	022031	SPEED OF CURRENT
112	222000	QUALITY INFORMATION FOLLOW
113	031031	DATA PRESENT INDICATOR
114	031031	DATA PRESENT INDICATOR
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224 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
225 001201 GENERATING APPLICATION  
226 033007 % CONFIDENCE  
227 033007 % CONFIDENCE  
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## BUFR SECTION 4 (DATA), SUBSET 1

1 SHIP OR MOBILE	1009.0000	CCITTIA5	JDWX
2 YEAR	2001.0000	YEAR	
3 MONTH	2.0000	MONTH	
4 DAY	12.0000	DAY	
5 HOUR	3.0000	HOUR	
6 MINUTE	6.0000	MINUTE	
7 LATITUDE (COARS	40.4000	DEGREE	
8 LONGITUDE (COAR	145.5000	DEGREE	
9 INDICATOR FOR D	2.0000	CODE TABLE	2032
10 DELAYED DESCRIP	49.0000	NUMERIC	
11 DEPTH BELOW SEA	74.0000	M	
12 SEA/WATER TEMPE	287.8000	K	
13 DEPTH BELOW SEA	20.0000	M	
14 SEA/WATER TEMPE	273.6000	K	
15 DEPTH BELOW SEA	30.0000	M	
16 SEA/WATER TEMPE	265.7000	K	
17 DEPTH BELOW SEA	43.0000	M	
18 SEA/WATER TEMPE	308.1000	K	
19 DEPTH BELOW SEA	20.0000	M	
20 SEA/WATER TEMPE	281.2000	K	
21 DEPTH BELOW SEA	30.0000	M	
22 SEA/WATER TEMPE	265.8000	K	
23 DEPTH BELOW SEA	43.0000	M	
24 SEA/WATER TEMPE	309.5000	K	
25 DEPTH BELOW SEA	20.0000	M	
26 SEA/WATER TEMPE	283.3000	K	
27 DEPTH BELOW SEA	30.0000	M	
28 SEA/WATER TEMPE	271.3000	K	
29 DEPTH BELOW SEA	43.0000	M	
30 SEA/WATER TEMPE	308.8000	K	
31 DEPTH BELOW SEA	20.0000	M	

32	SEA/WATER TEMPE	292.4000	K
33	DEPTH BELOW SEA	30.0000	M
34	SEA/WATER TEMPE	295.8000	K
35	DEPTH BELOW SEA	43.0000	M
36	SEA/WATER TEMPE	306.0000	K
37	DEPTH BELOW SEA	20.0000	M
38	SEA/WATER TEMPE	294.6000	K
39	DEPTH BELOW SEA	30.0000	M
40	SEA/WATER TEMPE	303.0000	K
41	DEPTH BELOW SEA	43.0000	M
42	SEA/WATER TEMPE	307.2000	K
43	DEPTH BELOW SEA	20.0000	M
44	SEA/WATER TEMPE	295.2000	K
45	DEPTH BELOW SEA	30.0000	M
46	SEA/WATER TEMPE	311.9000	K
47	DEPTH BELOW SEA	43.0000	M
48	SEA/WATER TEMPE	308.7000	K
49	DEPTH BELOW SEA	20.0000	M
50	SEA/WATER TEMPE	295.6000	K
51	DEPTH BELOW SEA	30.0000	M
52	SEA/WATER TEMPE	303.9000	K
53	DEPTH BELOW SEA	43.0000	M
54	SEA/WATER TEMPE	308.0000	K
55	DEPTH BELOW SEA	20.0000	M
56	SEA/WATER TEMPE	296.3000	K
57	DEPTH BELOW SEA	30.0000	M
58	SEA/WATER TEMPE	300.6000	K
59	DEPTH BELOW SEA	43.0000	M
60	SEA/WATER TEMPE	307.7000	K
61	DEPTH BELOW SEA	20.0000	M
62	SEA/WATER TEMPE	297.5000	K
63	DEPTH BELOW SEA	30.0000	M
64	SEA/WATER TEMPE	298.4000	K
65	DEPTH BELOW SEA	43.0000	M
66	SEA/WATER TEMPE	308.2000	K
67	DEPTH BELOW SEA	20.0000	M
68	SEA/WATER TEMPE	298.3000	K
69	DEPTH BELOW SEA	30.0000	M
70	SEA/WATER TEMPE	301.8000	K
71	DEPTH BELOW SEA	43.0000	M
72	SEA/WATER TEMPE	308.5000	K
73	DEPTH BELOW SEA	20.0000	M
74	SEA/WATER TEMPE	298.6000	K
75	DEPTH BELOW SEA	30.0000	M
76	SEA/WATER TEMPE	303.9000	K
77	DEPTH BELOW SEA	43.0000	M
78	SEA/WATER TEMPE	309.0000	K
79	DEPTH BELOW SEA	20.0000	M
80	SEA/WATER TEMPE	299.3000	K
81	DEPTH BELOW SEA	30.0000	M
82	SEA/WATER TEMPE	317.7000	K
83	DEPTH BELOW SEA	43.0000	M
84	SEA/WATER TEMPE	310.9000	K
85	DEPTH BELOW SEA	20.0000	M
86	SEA/WATER TEMPE	299.5000	K
87	DEPTH BELOW SEA	30.0000	M
88	SEA/WATER TEMPE	318.3000	K
89	DEPTH BELOW SEA	43.0000	M
90	SEA/WATER TEMPE	310.8000	K
91	DEPTH BELOW SEA	20.0000	M
92	SEA/WATER TEMPE	300.5000	K
93	DEPTH BELOW SEA	30.0000	M
94	SEA/WATER TEMPE	309.0000	K
95	DEPTH BELOW SEA	43.0000	M
96	SEA/WATER TEMPE	309.7000	K
97	DEPTH BELOW SEA	20.0000	M
98	SEA/WATER TEMPE	302.5000	K
99	DEPTH BELOW SEA	30.0000	M
100	SEA/WATER TEMPE	303.6000	K
101	DEPTH BELOW SEA	43.0000	M
102	SEA/WATER TEMPE	309.7000	K
103	DEPTH BELOW SEA	20.0000	M
104	SEA/WATER TEMPE	303.5000	K
105	DEPTH BELOW SEA	30.0000	M
106	SEA/WATER TEMPE	309.7000	K
107	DEPTH BELOW SEA	43.0000	M
108	SEA/WATER TEMPE	310.8000	K
109	DURATION AND TI	30.0000	CODE TABLE 2031
110	DIRECTION OF CU	MISSING	DEGREE TRUE
111	SPEED OF CURREN	MISSING	M/S
112	QUALITY INFORMA	.0000	
113	DATA PRESENT IN	.0000	NUMERIC
114	DATA PRESENT IN	.0000	NUMERIC
115	DATA PRESENT IN	.0000	NUMERIC
116	DATA PRESENT IN	.0000	NUMERIC
117	DATA PRESENT IN	.0000	NUMERIC
118	DATA PRESENT IN	.0000	NUMERIC
119	DATA PRESENT IN	.0000	NUMERIC
120	DATA PRESENT IN	.0000	NUMERIC
121	DATA PRESENT IN	.0000	NUMERIC
122	DATA PRESENT IN	.0000	NUMERIC
123	DATA PRESENT IN	.0000	NUMERIC
124	DATA PRESENT IN	.0000	NUMERIC

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218	DATA PRESENT IN	.0000	NUMERIC	
219	DATA PRESENT IN	.0000	NUMERIC	
220	DATA PRESENT IN	.0000	NUMERIC	
221	DATA PRESENT IN	.0000	NUMERIC	
222	DATA PRESENT IN	.0000	NUMERIC	
223	DATA PRESENT IN	.0000	NUMERIC	
224	IDENTIFICATION	98.0000	CODE TABLE	1031
225	GENERATING APPL	1.0000	CODE TABLE	1201
226	% CONFIDENCE	70.0000	NUMERIC	
227	% CONFIDENCE	70.0000	NUMERIC	
228	% CONFIDENCE	70.0000	NUMERIC	
229	% CONFIDENCE	70.0000	NUMERIC	
230	% CONFIDENCE	70.0000	NUMERIC	
231	% CONFIDENCE	70.0000	NUMERIC	
232	% CONFIDENCE	70.0000	NUMERIC	
233	% CONFIDENCE	70.0000	NUMERIC	
234	% CONFIDENCE	70.0000	NUMERIC	
235	% CONFIDENCE	70.0000	NUMERIC	
236	% CONFIDENCE	70.0000	NUMERIC	
237	% CONFIDENCE	70.0000	NUMERIC	
238	% CONFIDENCE	70.0000	NUMERIC	
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242	% CONFIDENCE	70.0000	NUMERIC	
243	% CONFIDENCE	70.0000	NUMERIC	
244	% CONFIDENCE	70.0000	NUMERIC	
245	% CONFIDENCE	70.0000	NUMERIC	
246	% CONFIDENCE	70.0000	NUMERIC	
247	% CONFIDENCE	70.0000	NUMERIC	
248	% CONFIDENCE	70.0000	NUMERIC	
249	% CONFIDENCE	70.0000	NUMERIC	
250	% CONFIDENCE	70.0000	NUMERIC	
251	% CONFIDENCE	70.0000	NUMERIC	
252	% CONFIDENCE	70.0000	NUMERIC	
253	% CONFIDENCE	70.0000	NUMERIC	
254	% CONFIDENCE	70.0000	NUMERIC	
255	% CONFIDENCE	70.0000	NUMERIC	
256	% CONFIDENCE	70.0000	NUMERIC	
257	% CONFIDENCE	70.0000	NUMERIC	
258	% CONFIDENCE	70.0000	NUMERIC	
259	% CONFIDENCE	70.0000	NUMERIC	
260	% CONFIDENCE	70.0000	NUMERIC	
261	% CONFIDENCE	70.0000	NUMERIC	
262	% CONFIDENCE	70.0000	NUMERIC	
263	% CONFIDENCE	70.0000	NUMERIC	
264	% CONFIDENCE	70.0000	NUMERIC	
265	% CONFIDENCE	70.0000	NUMERIC	
266	% CONFIDENCE	70.0000	NUMERIC	
267	% CONFIDENCE	70.0000	NUMERIC	
268	% CONFIDENCE	70.0000	NUMERIC	
269	% CONFIDENCE	70.0000	NUMERIC	
270	% CONFIDENCE	70.0000	NUMERIC	
271	% CONFIDENCE	70.0000	NUMERIC	
272	% CONFIDENCE	70.0000	NUMERIC	
273	% CONFIDENCE	70.0000	NUMERIC	
274	% CONFIDENCE	70.0000	NUMERIC	
275	% CONFIDENCE	70.0000	NUMERIC	
276	% CONFIDENCE	70.0000	NUMERIC	
277	% CONFIDENCE	70.0000	NUMERIC	
278	% CONFIDENCE	70.0000	NUMERIC	
279	% CONFIDENCE	70.0000	NUMERIC	
280	% CONFIDENCE	70.0000	NUMERIC	
281	% CONFIDENCE	70.0000	NUMERIC	
282	% CONFIDENCE	70.0000	NUMERIC	
283	% CONFIDENCE	70.0000	NUMERIC	
284	% CONFIDENCE	70.0000	NUMERIC	
285	% CONFIDENCE	70.0000	NUMERIC	
286	% CONFIDENCE	70.0000	NUMERIC	
287	% CONFIDENCE	70.0000	NUMERIC	
288	% CONFIDENCE	70.0000	NUMERIC	
289	% CONFIDENCE	70.0000	NUMERIC	
290	% CONFIDENCE	70.0000	NUMERIC	
291	% CONFIDENCE	70.0000	NUMERIC	
292	% CONFIDENCE	70.0000	NUMERIC	
293	% CONFIDENCE	70.0000	NUMERIC	
294	% CONFIDENCE	70.0000	NUMERIC	
295	% CONFIDENCE	70.0000	NUMERIC	
296	% CONFIDENCE	70.0000	NUMERIC	
297	% CONFIDENCE	70.0000	NUMERIC	
298	% CONFIDENCE	70.0000	NUMERIC	
299	% CONFIDENCE	70.0000	NUMERIC	
300	% CONFIDENCE	70.0000	NUMERIC	
301	% CONFIDENCE	70.0000	NUMERIC	
302	% CONFIDENCE	70.0000	NUMERIC	
303	% CONFIDENCE	70.0000	NUMERIC	
304	% CONFIDENCE	70.0000	NUMERIC	
305	% CONFIDENCE	70.0000	NUMERIC	
306	% CONFIDENCE	70.0000	NUMERIC	
307	% CONFIDENCE	70.0000	NUMERIC	
308	% CONFIDENCE	70.0000	NUMERIC	
309	% CONFIDENCE	70.0000	NUMERIC	
310	% CONFIDENCE	70.0000	NUMERIC	

311	%	CONFIDENCE	70.0000	NUMERIC
312	%	CONFIDENCE	70.0000	NUMERIC
313	%	CONFIDENCE	70.0000	NUMERIC
314	%	CONFIDENCE	70.0000	NUMERIC
315	%	CONFIDENCE	70.0000	NUMERIC
316	%	CONFIDENCE	70.0000	NUMERIC
317	%	CONFIDENCE	70.0000	NUMERIC
318	%	CONFIDENCE	70.0000	NUMERIC
319	%	CONFIDENCE	70.0000	NUMERIC
320	%	CONFIDENCE	70.0000	NUMERIC
321	%	CONFIDENCE	70.0000	NUMERIC
322	%	CONFIDENCE	70.0000	NUMERIC
323	%	CONFIDENCE	70.0000	NUMERIC
324	%	CONFIDENCE	70.0000	NUMERIC
325	%	CONFIDENCE	70.0000	NUMERIC
326	%	CONFIDENCE	70.0000	NUMERIC
327	%	CONFIDENCE	70.0000	NUMERIC
328	%	CONFIDENCE	70.0000	NUMERIC
329	%	CONFIDENCE	70.0000	NUMERIC
330	%	CONFIDENCE	70.0000	NUMERIC
331	%	CONFIDENCE	70.0000	NUMERIC
332	%	CONFIDENCE	70.0000	NUMERIC
333	%	CONFIDENCE	70.0000	NUMERIC
334	%	CONFIDENCE	70.0000	NUMERIC
335	%	CONFIDENCE	70.0000	NUMERIC
336	%	CONFIDENCE	70.0000	NUMERIC



## 3.47 QSCAT data

RDB type 12, subtype 138

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	1762
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	0
Flag (presence of section 2)	128
Bufr message type	12
Bufr message subtype	138
Version number of local table	1
Year	1
Month	2
Day	13
Hour	0
Minute	0
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
---------------------	----

#### Report Data Base Key

RDB data type	12
RDB data subtype	138
Year	2001
Month	2
Day	13
Hour	0
Minute	0
Second	0
Latitude 1	48.56
Longitude 1	71.45
Latitude 2	50.79
Longitude 2	71.45
Number of observations	0
Identifier	11777
Total Bufr message length	1762
Day (RDB insertion)	13
Hour (RDB insertion)	1
Minute (RDB insertion)	45
Second (RDB insertion)	40
Day (MDB arrival)	13
Hour (MDB arrival)	1
Minute (MDB arrival)	39
Second (MDB arrival)	14
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	10
Reserved	0
Number of data subsets	46
Flag (data type/data compression)	192

#### Data descriptors (unexpanded)

1	312028
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#### Data descriptors (expanded)

1	001007	SATELLITE IDENTIFIER
2	001012	DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM

```
3 002048 SATELLITE SENSOR INDICATOR
4 021119 WIND SCATTEROMETER GEOPHYSICAL MODEL FUNCTION
5 025060 SOFTWARE IDENTIFICATION
6 002026 CROSS TRACK RESOLUTION
7 002027 ALONG TRACK RESOLUTION
8 005040 ORBIT NUMBER
9 004001 YEAR
10 004002 MONTH
11 004003 DAY
12 004004 HOUR
13 004005 MINUTE
14 004006 SECOND
15 005002 LATITUDE (COARSE ACCURACY)
16 006002 LONGITUDE (COARSE ACCURACY)
17 008025 TIME DIFFERENCE QUALIFIER
18 004006 SECOND
19 005034 ALONG TRACK ROW NUMBER
20 006034 CROSS TRACK CELL NUMBER
21 021109 SEAWINDS WIND VECTOR CELL QUALITY FLAG
22 011081 MODEL WIND DIRECTION AT 10 M
23 011082 MODEL WIND SPEED AT 10 M
24 021101 NUMBER OF VECTOR AMBIGUITIES
25 021102 INDEX OF SELECTED WIND VECTOR
26 021103 TOTAL NUMBER OF SIGMA-0 MEASUREMENTS
27 021120 SEAWINDS PROBABILITY OF RAIN
28 021121 SEAWINDS NOF RAIN INDEX
29 013055 INTENSITY OF PRECIPITATION
30 021122 ATTENUATION CORRECTION ON SIGMA-0 (FROM Tb)
31 011012 WIND SPEED AT 10 M
32 011052 FORMAL UNCERTAINTY IN WIND SPEED
33 011011 WIND DIRECTION AT 10 M
34 011053 FORMAL UNCERTAINTY IN WIND DIRECTION
35 021104 LIKELIHOOD COMPUTED FOR WIND SOLUTION
36 011012 WIND SPEED AT 10 M
37 011052 FORMAL UNCERTAINTY IN WIND SPEED
38 011011 WIND DIRECTION AT 10 M
39 011053 FORMAL UNCERTAINTY IN WIND DIRECTION
40 021104 LIKELIHOOD COMPUTED FOR WIND SOLUTION
41 011012 WIND SPEED AT 10 M
42 011052 FORMAL UNCERTAINTY IN WIND SPEED
43 011011 WIND DIRECTION AT 10 M
44 011053 FORMAL UNCERTAINTY IN WIND DIRECTION
45 021104 LIKELIHOOD COMPUTED FOR WIND SOLUTION
46 011012 WIND SPEED AT 10 M
47 011052 FORMAL UNCERTAINTY IN WIND SPEED
48 011011 WIND DIRECTION AT 10 M
49 011053 FORMAL UNCERTAINTY IN WIND DIRECTION
50 021104 LIKELIHOOD COMPUTED FOR WIND SOLUTION
51 002104 ANTENNA POLARISATION
52 008022 TOTAL NUMBER(WITH RESPECT TO ACCUMULATION OR AVERAGE)
53 012063 BRIGHTNESS TEMPERATURE
54 012065 STANDARD DEVIATION BRIGHTNESS TEMPERATURE
55 002104 ANTENNA POLARISATION
56 008022 TOTAL NUMBER(WITH RESPECT TO ACCUMULATION OR AVERAGE)
57 012063 BRIGHTNESS TEMPERATURE
58 012065 STANDARD DEVIATION BRIGHTNESS TEMPERATURE
59 021110 NUMBER OF INNER-BEAM SIGMA-0 (FORWARD OF SATELLITE)
60 005002 LATITUDE (COARSE ACCURACY)
61 006002 LONGITUDE (COARSE ACCURACY)
62 021118 ATTENUATION CORRECTION ON SIGMA-0
63 002112 RADAR LOOK ANGLE
64 002111 RADAR INCIDENCE ANGLE
65 002104 ANTENNA POLARISATION
66 021123 SEAWINDS NORMALIZED RADAR CROSS SECTION
67 021106 Kp VARIANCE COEFFICIENT (ALPHA)
68 021107 Kp VARIANCE COEFFICIENT (BETA)
69 021114 Kp VARIANCE COEFFICIENT (GAMMA)
70 021115 SEAWINDS SIGMA-0 QUALITY FLAG
71 021116 SEAWINDS SIGMA-0 MODE FLAG
72 008018 SEAWINDS LAND/ICE SURFACE FLAG
73 021117 SIGMA-0 VARIANCE QUALITY CONTROL
74 021111 NUMBER OF OUTER-BEAM SIGMA-0 (FORWARD OF SATELLITE)
75 005002 LATITUDE (COARSE ACCURACY)
76 006002 LONGITUDE (COARSE ACCURACY)
77 021118 ATTENUATION CORRECTION ON SIGMA-0
78 002112 RADAR LOOK ANGLE
79 002111 RADAR INCIDENCE ANGLE
80 002104 ANTENNA POLARISATION
81 021123 SEAWINDS NORMALIZED RADAR CROSS SECTION
82 021106 Kp VARIANCE COEFFICIENT (ALPHA)
83 021107 Kp VARIANCE COEFFICIENT (BETA)
84 021114 Kp VARIANCE COEFFICIENT (GAMMA)
85 021115 SEAWINDS SIGMA-0 QUALITY FLAG
86 021116 SEAWINDS SIGMA-0 MODE FLAG
87 008018 SEAWINDS LAND/ICE SURFACE FLAG
88 021117 SIGMA-0 VARIANCE QUALITY CONTROL
89 021112 NUMBER OF INNER-BEAM SIGMA-0 (AFT OF SATELLITE)
90 005002 LATITUDE (COARSE ACCURACY)
91 006002 LONGITUDE (COARSE ACCURACY)
92 021118 ATTENUATION CORRECTION ON SIGMA-0
93 002112 RADAR LOOK ANGLE
94 002111 RADAR INCIDENCE ANGLE
95 002104 ANTENNA POLARISATION
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96 021123 SEAWINDS NORMALIZED RADAR CROSS SECTION
97 021106 Kp VARIANCE COEFFICIENT (ALPHA)
98 021107 Kp VARIANCE COEFFICIENT (BETA)
99 021114 Kp VARIANCE COEFFICIENT (GAMMA)
100 021115 SEAWINDS SIGMA-0 QUALITY FLAG
101 021116 SEAWINDS SIGMA-0 MODE FLAG
102 008018 SEAWINDS LAND/ICE SURFACE FLAG
103 021117 SIGMA-0 VARIANCE QUALITY CONTROL
104 021113 NUMBER OF OUTER-BEAM SIGMA-0 (AFT OF SATELLITE)
105 005002 LATITUDE (COARSE ACCURACY)
106 006002 LONGITUDE (COARSE ACCURACY)
107 021118 ATTENUATION CORRECTION ON SIGMA-0
108 002112 RADAR LOOK ANGLE
109 002111 RADAR INCIDENCE ANGLE
110 002104 ANTENNA POLARISATION
111 021123 SEAWINDS NORMALIZED RADAR CROSS SECTION
112 021106 Kp VARIANCE COEFFICIENT (ALPHA)
113 021107 Kp VARIANCE COEFFICIENT (BETA)
114 021114 Kp VARIANCE COEFFICIENT (GAMMA)
115 021115 SEAWINDS SIGMA-0 QUALITY FLAG
116 021116 SEAWINDS SIGMA-0 MODE FLAG
117 008018 SEAWINDS LAND/ICE SURFACE FLAG
118 021117 SIGMA-0 VARIANCE QUALITY CONTROL

```

BUFR SECTION 4 (DATA), SUBSET 1

1	SATELLITE IDENT	281.0000	CODE TABLE	1007
2	DIRECTION OF MO	347.0000	DEGREE TRUE	
3	SATELLITE SENSO	8.0000	CODE TABLE	2048
4	WIND SCATTEROME	7.0000	CODE TABLE	21119
5	SOFTWARE INDENT	232.0000	NUMERIC	
6	CROSS TRACK RES	25000.0000	M	
7	ALONG TRACK RES	25000.0000	M	
8	ORBIT NUMBER	8613.0000	NUMERIC	
9	YEAR	2001.0000	YEAR	
10	MONTH	2.0000	MONTH	
11	DAY	13.0000	DAY	
12	HOURL	.0000	HOURL	
13	MINUTE	.0000	MINUTE	
14	SECOND	.0000	SECOND	
15	LATITUDE (COARS	48.5600	DEGREE	
16	LONGITUDE (COAR	71.4500	DEGREE	
17	TIME DIFFERENCE	5.0000	CODE TABLE	8025
18	SECOND	29.0000	SECOND	
19	ALONG TRACK ROW	634.0000	NUMERIC	
20	CROSS TRACK CEL	18.0000	NUMERIC	
21	SEAWINDS WIND V	49472.0000	FLAG TABLE	21109
22	MODEL WIND DIRE	MISSING	DEGREE TRUE	
23	MODEL WIND SPEE	MISSING	M/S	
24	NUMBER OF VECTO	.0000	NUMERIC	
25	INDEX OF SELECT	MISSING	NUMERIC	
26	TOTAL NUMBER OF	1.0000	NUMERIC	
27	SEAWINDS PROBAB	.0000	NUMERIC	
28	SEAWINDS NOF RA	.0000	NUMERIC	
29	INTENSITY OF PR	MISSING	KG/M**2S	
30	ATTENUATION COR	MISSING	dB	
31	WIND SPEED AT 1	MISSING	M/S	
32	FORMAL UNCERTA	MISSING	M/S	
33	WIND DIRECTION	MISSING	DEGREE TRUE	
34	FORMAL UNCERTA	MISSING	DEGREE TRUE	
35	LIKELIHOOD COMP	MISSING	NUMERIC	
36	WIND SPEED AT 1	MISSING	M/S	
37	FORMAL UNCERTA	MISSING	M/S	
38	WIND DIRECTION	MISSING	DEGREE TRUE	
39	FORMAL UNCERTA	MISSING	DEGREE TRUE	
40	LIKELIHOOD COMP	MISSING	NUMERIC	
41	WIND SPEED AT 1	MISSING	M/S	
42	FORMAL UNCERTA	MISSING	M/S	
43	WIND DIRECTION	MISSING	DEGREE TRUE	
44	FORMAL UNCERTA	MISSING	DEGREE TRUE	
45	LIKELIHOOD COMP	MISSING	NUMERIC	
46	WIND SPEED AT 1	MISSING	M/S	
47	FORMAL UNCERTA	MISSING	M/S	
48	WIND DIRECTION	MISSING	DEGREE TRUE	
49	FORMAL UNCERTA	MISSING	DEGREE TRUE	
50	LIKELIHOOD COMP	MISSING	NUMERIC	
51	ANTENNA POLARIS	MISSING	CODE TABLE	2104
52	TOTAL NUMBER(WI	MISSING	NUMERIC	
53	BRIGHTNESS TEMP	MISSING	K	
54	STANDARD DEVIAT	MISSING	K	
55	ANTENNA POLARIS	1.0000	CODE TABLE	2104
56	TOTAL NUMBER(WI	2.0000	NUMERIC	
57	BRIGHTNESS TEMP	227.5000	K	
58	STANDARD DEVIAT	137.5000	K	
59	NUMBER OF INNER	.0000	NUMERIC	
60	LATITUDE (COARS	MISSING	DEGREE	
61	LONGITUDE (COAR	MISSING	DEGREE	
62	ATTENUATION COR	MISSING	dB	
63	RADAR LOOK ANGL	MISSING	DEGREE	
64	RADAR INCIDENCE	MISSING	DEGREE	
65	ANTENNA POLARIS	MISSING	CODE TABLE	2104
66	SEAWINDS NORMAL	MISSING	dB	
67	Kp VARIANCE COE	MISSING	NUMERIC	

68 Kp VARIANCE COE	MISSING NUMERIC	
69 Kp VARIANCE COE	MISSING dB	
70 SEAWINDS SIGMA-	MISSING FLAG TABLE	21115
71 SEAWINDS SIGMA-	MISSING FLAG TABLE	21116
72 SEAWINDS LAND/I	MISSING FLAG TABLE	8018
73 SIGMA-0 VARIANC	MISSING NUMERIC	
74 NUMBER OF OUTER	1.0000 NUMERIC	
75 LATITUDE (COARS	48.5600 DEGREE	
76 LONGITUDE (COAR	71.4500 DEGREE	
77 ATTENUATION COR	.1400 dB	
78 RADAR LOOK ANGL	304.6900 DEGREE	
79 RADAR INCIDENCE	54.2400 DEGREE	
80 ANTENNA POLARIS	1.0000 CODE TABLE	2104
81 SEAWINDS NORMAL	-13.6100 dB	
82 Kp VARIANCE COE	1.0130 NUMERIC	
83 Kp VARIANCE COE	.0000 NUMERIC	
84 Kp VARIANCE COE	-80.2220 dB	
85 SEAWINDS SIGMA-	.0000 FLAG TABLE	21115
86 SEAWINDS SIGMA-	8960.0000 FLAG TABLE	21116
87 SEAWINDS LAND/I	32768.0000 FLAG TABLE	8018
88 SIGMA-0 VARIANC	MISSING NUMERIC	
89 NUMBER OF INNER	.0000 NUMERIC	
90 LATITUDE (COARS	MISSING DEGREE	
91 LONGITUDE (COAR	MISSING DEGREE	
92 ATTENUATION COR	MISSING dB	
93 RADAR LOOK ANGL	MISSING DEGREE	
94 RADAR INCIDENCE	MISSING DEGREE	
95 ANTENNA POLARIS	MISSING CODE TABLE	2104
96 SEAWINDS NORMAL	MISSING dB	
97 Kp VARIANCE COE	MISSING NUMERIC	
98 Kp VARIANCE COE	MISSING NUMERIC	
99 Kp VARIANCE COE	MISSING dB	
100 SEAWINDS SIGMA-	MISSING FLAG TABLE	21115
101 SEAWINDS SIGMA-	MISSING FLAG TABLE	21116
102 SEAWINDS LAND/I	MISSING FLAG TABLE	8018
103 SIGMA-0 VARIANC	MISSING NUMERIC	
104 NUMBER OF OUTER	.0000 NUMERIC	
105 LATITUDE (COARS	MISSING DEGREE	
106 LONGITUDE (COAR	MISSING DEGREE	
107 ATTENUATION COR	MISSING dB	
108 RADAR LOOK ANGL	MISSING DEGREE	
109 RADAR INCIDENCE	MISSING DEGREE	
110 ANTENNA POLARIS	MISSING CODE TABLE	2104
111 SEAWINDS NORMAL	MISSING dB	
112 Kp VARIANCE COE	MISSING NUMERIC	
113 Kp VARIANCE COE	MISSING NUMERIC	
114 Kp VARIANCE COE	MISSING dB	
115 SEAWINDS SIGMA-	MISSING FLAG TABLE	21115
116 SEAWINDS SIGMA-	MISSING FLAG TABLE	21116
117 SEAWINDS LAND/I	MISSING FLAG TABLE	8018
118 SIGMA-0 VARIANC	MISSING NUMERIC	

## 3.48 Metar data

RDB type 1, subtype 140

B0000980601,D0000980601

BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	168
Bufr Edition number	3

BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	0
Bufr message subtype	140
Version number of local table	1
Year	1
Month	2
Day	12
Hour	0
Minute	0
Version number of Master table	6
Bufr Master table	0

BUFR SECTION 2

Length of section 2	52
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Report Data Base Key

RDB data type	1
RDB data subtype	140
Year	2001
Month	2
Day	12
Hour	0
Minute	0
Second	0
Latitude 1	24.90
Longitude 1	67.12
Identifier	OPKC
Total Bufr message length	168
Day (RDB insertion)	12
Hour (RDB insertion)	0
Minute (RDB insertion)	13
Second (RDB insertion)	38
Day (MDB arrival)	12
Hour (MDB arrival)	0
Minute (MDB arrival)	10
Second (MDB arrival)	53
Correction number	0
Part of message	1
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

1

BUFR SECTION 3

Length of section 3 (bytes)	24
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

Data descriptors (unexpanded)

1	307011
2	222000
3	101021
4	031031
5	001031
6	001032
7	101021
8	033007

Data descriptors (expanded)

```

1 001063 ICAO LOCATION INDICATOR
2 002001 TYPE OF STATION
3 004001 YEAR
4 004002 MONTH
5 004003 DAY
6 004004 HOUR
7 004005 MINUTE
8 005002 LATITUDE (COARSE ACCURACY)
9 006002 LONGITUDE (COARSE ACCURACY)
10 007001 HEIGHT OF STATION
11 007006 HEIGHT ABOVE STATION
12 011001 WIND DIRECTION
13 011016 EXTREME COUNTERCLOCKWISE WIND DIRECTION OF A VARIABLE WIND
14 011017 EXTREME CLOCKWISE WIND DIRECTION OF A VARIABLE WIND
15 011002 WIND SPEED
16 011041 MAXIMUM WIND SPEED (GUSTS)
17 007006 HEIGHT ABOVE STATION
18 012001 TEMPERATURE/DRY BULB TEMPERATURE
19 012003 DEW POINT TEMPERATURE
20 010052 ALTIMETER SETTING (QNH)
21 020009 GENERAL WEATHER INDICATOR
22 222000 QUALITY INFORMATION FOLLOW
23 031031 DATA PRESENT INDICATOR
24 031031 DATA PRESENT INDICATOR
25 031031 DATA PRESENT INDICATOR
26 031031 DATA PRESENT INDICATOR
27 031031 DATA PRESENT INDICATOR
28 031031 DATA PRESENT INDICATOR
29 031031 DATA PRESENT INDICATOR
30 031031 DATA PRESENT INDICATOR
31 031031 DATA PRESENT INDICATOR
32 031031 DATA PRESENT INDICATOR
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35 031031 DATA PRESENT INDICATOR
36 031031 DATA PRESENT INDICATOR
37 031031 DATA PRESENT INDICATOR
38 031031 DATA PRESENT INDICATOR
39 031031 DATA PRESENT INDICATOR
40 031031 DATA PRESENT INDICATOR
41 031031 DATA PRESENT INDICATOR
42 031031 DATA PRESENT INDICATOR
43 031031 DATA PRESENT INDICATOR
44 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
45 001032 GENERATING APPLICATION
46 033007 % CONFIDENCE
47 033007 % CONFIDENCE
48 033007 % CONFIDENCE
49 033007 % CONFIDENCE
50 033007 % CONFIDENCE
51 033007 % CONFIDENCE
52 033007 % CONFIDENCE
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64 033007 % CONFIDENCE
65 033007 % CONFIDENCE
66 033007 % CONFIDENCE

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#### BUFR SECTION 4 (DATA), SUBSET 1

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1 ICAO LOCATION I      1008.0000 CCITTIA5      OPKC
2 TYPE OF STATION      1.0000 CODE TABLE  2001
3 YEAR                 2001.0000 YEAR
4 MONTH                2.0000 MONTH
5 DAY                  12.0000 DAY
6 HOUR                 .0000 HOUR
7 MINUTE               .0000 MINUTE
8 LATITUDE (COARS     24.9000 DEGREE
9 LONGITUDE (COAR     67.1200 DEGREE
10 HEIGHT OF STATI    21.0000 M
11 HEIGHT ABOVE ST    10.0000 M
12 WIND DIRECTION      .0000 DEGREE TRUE
13 EXTREME COUNTER     MISSING DEGREE TRUE
14 EXTREME CLOCKWI     MISSING DEGREE TRUE
15 WIND SPEED          .0000 M/S
16 MAXIMUM WIND SP     MISSING M/S
17 HEIGHT ABOVE ST     2.0000 M
18 TEMPERATURE/DRY     289.2000 K
19 DEW POINT TEMPE     280.2000 K
20 ALTIMETER SETTI     101100.0000 PA
21 GENERAL WEATHER     MISSING CODE TABLE 20009
22 QUALITY INFORMA     .0000
23 DATA PRESENT IN     .0000 NUMERIC

```

24 DATA PRESENT IN	.0000	NUMERIC	
25 DATA PRESENT IN	.0000	NUMERIC	
26 DATA PRESENT IN	.0000	NUMERIC	
27 DATA PRESENT IN	.0000	NUMERIC	
28 DATA PRESENT IN	.0000	NUMERIC	
29 DATA PRESENT IN	.0000	NUMERIC	
30 DATA PRESENT IN	.0000	NUMERIC	
31 DATA PRESENT IN	.0000	NUMERIC	
32 DATA PRESENT IN	.0000	NUMERIC	
33 DATA PRESENT IN	.0000	NUMERIC	
34 DATA PRESENT IN	.0000	NUMERIC	
35 DATA PRESENT IN	.0000	NUMERIC	
36 DATA PRESENT IN	.0000	NUMERIC	
37 DATA PRESENT IN	.0000	NUMERIC	
38 DATA PRESENT IN	.0000	NUMERIC	
39 DATA PRESENT IN	.0000	NUMERIC	
40 DATA PRESENT IN	.0000	NUMERIC	
41 DATA PRESENT IN	.0000	NUMERIC	
42 DATA PRESENT IN	.0000	NUMERIC	
43 DATA PRESENT IN	.0000	NUMERIC	
44 IDENTIFICATION	98.0000	CODE TABLE	1031
45 GENERATING APPL	1.0000	CODE TABLE	1032
46 % CONFIDENCE	70.0000	NUMERIC	
47 % CONFIDENCE	70.0000	NUMERIC	
48 % CONFIDENCE	70.0000	NUMERIC	
49 % CONFIDENCE	70.0000	NUMERIC	
50 % CONFIDENCE	70.0000	NUMERIC	
51 % CONFIDENCE	70.0000	NUMERIC	
52 % CONFIDENCE	70.0000	NUMERIC	
53 % CONFIDENCE	70.0000	NUMERIC	
54 % CONFIDENCE	70.0000	NUMERIC	
55 % CONFIDENCE	70.0000	NUMERIC	
56 % CONFIDENCE	70.0000	NUMERIC	
57 % CONFIDENCE	75.0000	NUMERIC	
58 % CONFIDENCE	70.0000	NUMERIC	
59 % CONFIDENCE	70.0000	NUMERIC	
60 % CONFIDENCE	74.0000	NUMERIC	
61 % CONFIDENCE	70.0000	NUMERIC	
62 % CONFIDENCE	70.0000	NUMERIC	
63 % CONFIDENCE	77.0000	NUMERIC	
64 % CONFIDENCE	77.0000	NUMERIC	
65 % CONFIDENCE	70.0000	NUMERIC	
66 % CONFIDENCE	70.0000	NUMERIC	

## 3.49 Surface ozone

RDB type 9, subtype 157

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	140
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	8
Bufr message subtype	157
Version number of local table	1
Year	1
Month	2
Day	13
Hour	11
Minute	40
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
---------------------	----

#### Report Data Base Key

RDB data type	9
RDB data subtype	157
Year	2001
Month	2
Day	13
Hour	11
Minute	40
Second	0
Latitude 1	50.18
Longitude 1	15.83
Identifier	11649
Total Bufr message length	140
Day (RDB insertion)	13
Hour (RDB insertion)	11
Minute (RDB insertion)	52
Second (RDB insertion)	47
Day (MDB arrival)	13
Hour (MDB arrival)	11
Minute (MDB arrival)	51
Second (MDB arrival)	29
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	10
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

#### Data descriptors (unexpanded)

1 307041

#### Data descriptors (expanded)

1	001001	WMO BLOCK NUMBER
2	001002	WMO STATION NUMBER
3	001015	STATION OR SITE NAME
4	005001	LATITUDE (HIGH ACCURACY)



```

5 006001 LONGITUDE (HIGH ACCURACY)
6 007001 HEIGHT OF STATION
7 004001 YEAR
8 004002 MONTH
9 004003 DAY
10 004004 HOUR
11 004005 MINUTE
12 002143 OZONE INSTRUMENT TYPE
13 002142 OZONE INSTRUMENT SERIAL NUMBER/IDENTIFICATION
14 002144 LIGHT SOURCE TYPE FOR BREWER SPECTROPHOTOMETER
15 015001 OZON
16 015002 AIR MASS (SLANT PATH AT 22 KM)

```

BUFR SECTION 4 (DATA), SUBSET 1

1 WMO BLOCK NUMBE	11.0000	NUMERIC		
2 WMO STATION NUM	649.0000	NUMERIC		
3 STATION OR SITE	1020.0000	CCITTIA5		HRADEC KRALOVE
4 LATITUDE (HIGH	50.1800	DEGREE		
5 LONGITUDE (HIGH	15.8300	DEGREE		
6 HEIGHT OF STATI	285.0000	M		
7 YEAR	2001.0000	YEAR		
8 MONTH	2.0000	MONTH		
9 DAY	13.0000	DAY		
10 HOUR	11.0000	HOUR		
11 MINUTE	40.0000	MINUTE		
12 OZON INSTRUMENT	1.0000	CODE TABLE	2143	
13 OZONE INSTRUMEN	2004.0000	CCITTIA5		98
14 LIGHT SOURCE TY	6.0000	CODE TABLE	2144	
15 OZON	281.0000	DOBSON		
16 AIR MASS (SLANT	2.2300	NUMERIC		

### 3.50 Total column ozone

RDB type 9, subtype 158

BUFR Tables to be loaded B0000980601,D0000980601

```
1
    BUFR SECTION 0

    Length of section 0 (bytes)      8
    Total length of Bufr message (bytes) 146
    Bufr Edition number              3
```

```
1
    BUFR SECTION 1

    Length of section 1 (bytes)      18
    Bufr Edition number              3
    Originating sub-centre           0
    Originating centre               98
    Update sequence number            1
    Flag (presence of section 2)     128
    Bufr message type                 8
    Bufr message subtype              158
    Version number of local table     1
    Year                              1
    Month                             2
    Day                               13
    Hour                              8
    Minute                            29
    Version number of Master table     6
    Bufr Master table                 0
```

```
1
    BUFR SECTION 2

    Length of section 2              52

    Report Data Base Key

    RDB data type                    9
    RDB data subtype                 158
    Year                             2001
    Month                            2
    Day                              13
    Hour                             8
    Minute                           29
    Second                           0
    Latitude 1                       50.18
    Longitude 1                      15.83
    Identifier                       11649
    Total Bufr message length        146
    Day (RDB insertion)              13
    Hour (RDB insertion)             14
    Minute (RDB insertion)           18
    Second (RDB insertion)           44
    Day (MDB arrival)                13
    Hour (MDB arrival)               14
    Minute (MDB arrival)             18
    Second (MDB arrival)             19
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Correction number                 0
    Part of message                   0
    Quality control % conf           70
```

```
1
    BUFR SECTION 3

    Length of section 3 (bytes)      10
    Reserved                          0
    Number of data subsets            1
    Flag (data type/data compression) 128
```

Data descriptors (unexpanded)

```
1 307042
```

Data descriptors (expanded)

```
1 001001 WMO BLOCK NUMBER
2 001002 WMO STATION NUMBER
3 001015 STATION OR SITE NAME
4 005001 LATITUDE (HIGH ACCURACY)
5 006001 LONGITUDE (HIGH ACCURACY)
```

```

6 007001 HEIGHT OF STATION
7 004001 YEAR
8 004002 MONTH
9 004003 DAY
10 004004 HOUR
11 004005 MINUTE
12 008021 TIME SIGNIFICANCE
13 004025 TIME PERIOD OR DISPLACEMENT
14 002143 OZON INSTRUMENT TYPE
15 002142 OZONE INSTRUMENT SERIAL NUMBER/IDENTIFICATION
16 002144 LIGHT SOURCE TYPE FOR BREWER SPECTROPHOTOMETER
17 008022 TOTAL NUMBER (WITH RESPECT TO ACCUMULATION OR AVERAGE)
18 008023 FIRST ORDER STATISTICS
19 015001 OZON
20 008023 FIRST ORDER STATISTICS
21 015001 OZON
22 008023 FIRST ORDER STATISTICS
23 015002 AIR MASS (SLANT PATH AT 22 KM)

```

BUFR SECTION 4 (DATA), SUBSET 1

1 WMO BLOCK NUMBE	11.0000	NUMERIC	
2 WMO STATION NUM	649.0000	NUMERIC	
3 STATION OR SITE	1020.0000	CCITTIA5	Hradec Kralove
4 LATITUDE (HIGH	50.1800	DEGREE	
5 LONGITUDE (HIGH	15.8300	DEGREE	
6 HEIGHT OF STATI	285.0000	M	
7 YEAR	2001.0000	YEAR	
8 MONTH	2.0000	MONTH	
9 DAY	13.0000	DAY	
10 HOUR	8.0000	HOUR	
11 MINUTE	29.0000	MINUTE	
12 TIME SIGNIFICAN	8.0000	CODE TABLE	8021
13 TIME PERIOD OR	304.0000	MINUTE	
14 OZON INSTRUMENT	1.0000	CODE TABLE	2143
15 OZONE INSTRUMEN	2004.0000	CCITTIA5	98
16 LIGHT SOURCE TY	6.0000	CODE TABLE	2144
17 TOTAL NUMBER (WI	12.0000	NUMERIC	
18 FIRST ORDER STA	4.0000	CODE TABLE	8023
19 OZON	279.0000	DOBSON	
20 FIRST ORDER STA	9.0000	CODE TABLE	8023
21 OZON	9.0000	DOBSON	
22 FIRST ORDER STA	11.0000	CODE TABLE	8023
23 AIR MASS (SLANT	2.4800	NUMERIC	

## 3.51 Ozone profile

RDB type 9, subtype 162

BUFR Tables to be loaded B0000980601,D0000980601

### BUFR SECTION 0

Length of section 0 (bytes)	8
Total length of Bufr message (bytes)	5704
Bufr Edition number	3

### BUFR SECTION 1

Length of section 1 (bytes)	18
Bufr Edition number	3
Originating sub-centre	0
Originating centre	98
Update sequence number	1
Flag (presence of section 2)	128
Bufr message type	8
Bufr message subtype	162
Version number of local table	1
Year	1
Month	2
Day	13
Hour	11
Minute	18
Version number of Master table	6
Bufr Master table	0

### BUFR SECTION 2

Length of section 2	52
---------------------	----

#### Report Data Base Key

RDB data type	9
RDB data subtype	162
Year	2001
Month	2
Day	13
Hour	11
Minute	18
Second	0
Latitude 1	52.10
Longitude 1	5.18
Identifier	06260
Total Bufr message length	5704
Day (RDB insertion)	13
Hour (RDB insertion)	14
Minute (RDB insertion)	13
Second (RDB insertion)	42
Day (MDB arrival)	13
Hour (MDB arrival)	14
Minute (MDB arrival)	12
Second (MDB arrival)	43
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Correction number	0
Part of message	0
Quality control % conf	70

### BUFR SECTION 3

Length of section 3 (bytes)	52
Reserved	0
Number of data subsets	1
Flag (data type/data compression)	128

#### Data descriptors (unexpanded)

1	301001
2	001015
3	301024
4	008021
5	301011
6	301012
7	002143
8	002142
9	015001
10	002011
11	002143

```

12 015004
13 015005
14 107000
15 031002
16 007004
17 012073
18 013003
19 011001
20 011002
21 015003
22 004016

```

## Data descriptors (expanded)

```

1 001001 WMO BLOCK NUMBER
2 001002 WMO STATION NUMBER
3 001015 STATION OR SITE NAME
4 005002 LATITUDE (COARSE ACCURACY)
5 006002 LONGITUDE (COARSE ACCURACY)
6 007001 HEIGHT OF STATION
7 008021 TIME SIGNIFICANCE
8 004001 YEAR
9 004002 MONTH
10 004003 DAY
11 004004 HOUR
12 004005 MINUTE
13 002143 OZONE INSTRUMENT TYPE
14 002142 OZONE INSTRUMENT SERIAL NUMBER/IDENTIFICATION
15 015001 OZONE
16 002011 RADIOSONDE TYPE
17 002143 OZONE INSTRUMENT TYPE
18 015004 OZONE SOUNDING CORRECTION FACTOR (CF)
19 015005 OZONE p
20 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
21 007004 PRESSURE
22 012073 TEMPERATURE
23 013003 RELATIVE HUMIDITY
24 011001 WIND DIRECTION
25 011002 WIND SPEED
26 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
27 004016 TIME INCREMENT
28 007004 PRESSURE
29 012073 TEMPERATURE
30 013003 RELATIVE HUMIDITY
31 011001 WIND DIRECTION
32 011002 WIND SPEED
33 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
34 004016 TIME INCREMENT
35 007004 PRESSURE
36 012073 TEMPERATURE
37 013003 RELATIVE HUMIDITY
38 011001 WIND DIRECTION
39 011002 WIND SPEED
40 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
41 004016 TIME INCREMENT
42 007004 PRESSURE
43 012073 TEMPERATURE
44 013003 RELATIVE HUMIDITY
45 011001 WIND DIRECTION
46 011002 WIND SPEED
47 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
48 004016 TIME INCREMENT
49 007004 PRESSURE
50 012073 TEMPERATURE
51 013003 RELATIVE HUMIDITY
52 011001 WIND DIRECTION
53 011002 WIND SPEED
54 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
55 004016 TIME INCREMENT
56 007004 PRESSURE
57 012073 TEMPERATURE
58 013003 RELATIVE HUMIDITY
59 011001 WIND DIRECTION
60 011002 WIND SPEED
61 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
62 004016 TIME INCREMENT
63 007004 PRESSURE
64 012073 TEMPERATURE
65 013003 RELATIVE HUMIDITY
66 011001 WIND DIRECTION
67 011002 WIND SPEED
68 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
69 004016 TIME INCREMENT
70 007004 PRESSURE
71 012073 TEMPERATURE
72 013003 RELATIVE HUMIDITY
73 011001 WIND DIRECTION
74 011002 WIND SPEED
75 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
76 004016 TIME INCREMENT
77 007004 PRESSURE
78 012073 TEMPERATURE

```

```

79 013003 RELATIVE HUMIDITY
80 011001 WIND DIRECTION
81 011002 WIND SPEED
82 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
83 004016 TIME INCREMENT
84 007004 PRESSURE
85 012073 TEMPERATURE
86 013003 RELATIVE HUMIDITY
87 011001 WIND DIRECTION
88 011002 WIND SPEED
89 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
90 004016 TIME INCREMENT
91 007004 PRESSURE
92 012073 TEMPERATURE
93 013003 RELATIVE HUMIDITY
94 011001 WIND DIRECTION
95 011002 WIND SPEED
96 015003 MEASURED OZONE PARTIAL PRESSURE (SOUNDING)
97 004016 TIME INCREMENT
98 007004 PRESSURE
99 012073 TEMPERATURE
100 013003 RELATIVE HUMIDITY

```

#### BUFR SECTION 4 (DATA), SUBSET 1

1	WMO BLOCK NUMBE	6.0000	NUMERIC	
2	WMO STATION NUM	260.0000	NUMERIC	
3	STATION OR SITE	1020.0000	CCITTIA5	Deblit
4	LATITUDE (COARS	52.1000	DEGREE	
5	LONGITUDE (COAR	5.1800	DEGREE	
6	HEIGHT OF STATI	4.0000	M	
7	TIME SIGNIFICAN	18.0000	CODE TABLE	8021
8	YEAR	2001.0000	YEAR	
9	MONTH	2.0000	MONTH	
10	DAY	13.0000	DAY	
11	HOURL	11.0000	HOURL	
12	MINUTE	18.0000	MINUTE	
13	OZON INSTRUMENT	MISSING CODE TABLE	2143	
14	OZONE INSTRUMEN	2004.0000	CCITTIA5	///
15	OZON	234.0000	DOBSON	
16	RADIOSONDE TYPE	61.0000	CODE TABLE	2011
17	OZON INSTRUMENT	19.0000	CODE TABLE	2143
18	OZONE SOUNDING	MISSING NUMERIC		
19	OZONE p	MISSING DOBSON		
20	EXTENDED DELAYE	559.0000	NUMERIC	
21	PRESSURE	103500.0000	PA	
22	TEMPERATURE	281.3000	K	
23	RELATIVE HUMIDI	74.0000	%	
24	WIND DIRECTION	10.0000	DEGREE TRUE	
25	WIND SPEED	6.0000	M/S	
26	MEASURED OZONE	.0025	PA	
27	TIME INCREMENT	.0000	SECOND	
28	PRESSURE	102700.0000	PA	
29	TEMPERATURE	280.3000	K	
30	RELATIVE HUMIDI	69.0000	%	
31	WIND DIRECTION	13.0000	DEGREE TRUE	
32	WIND SPEED	6.0000	M/S	
33	MEASURED OZONE	.0026	PA	
34	TIME INCREMENT	10.0000	SECOND	
35	PRESSURE	102000.0000	PA	
36	TEMPERATURE	279.7000	K	
37	RELATIVE HUMIDI	71.0000	%	
38	WIND DIRECTION	15.0000	DEGREE TRUE	
39	WIND SPEED	5.9000	M/S	
40	MEASURED OZONE	.0027	PA	
41	TIME INCREMENT	20.0000	SECOND	
42	PRESSURE	101300.0000	PA	
43	TEMPERATURE	279.0000	K	
44	RELATIVE HUMIDI	71.0000	%	
45	WIND DIRECTION	16.0000	DEGREE TRUE	
46	WIND SPEED	5.8000	M/S	
47	MEASURED OZONE	.0028	PA	
48	TIME INCREMENT	30.0000	SECOND	
49	PRESSURE	100800.0000	PA	
50	TEMPERATURE	278.6000	K	
51	RELATIVE HUMIDI	73.0000	%	
52	WIND DIRECTION	17.0000	DEGREE TRUE	
53	WIND SPEED	5.7000	M/S	
54	MEASURED OZONE	.0029	PA	
55	TIME INCREMENT	40.0000	SECOND	
56	PRESSURE	100200.0000	PA	
57	TEMPERATURE	278.2000	K	
58	RELATIVE HUMIDI	75.0000	%	
59	WIND DIRECTION	18.0000	DEGREE TRUE	
60	WIND SPEED	5.7000	M/S	
61	MEASURED OZONE	.0030	PA	
62	TIME INCREMENT	50.0000	SECOND	
63	PRESSURE	99620.0000	PA	
64	TEMPERATURE	277.7000	K	
65	RELATIVE HUMIDI	77.0000	%	
66	WIND DIRECTION	18.0000	DEGREE TRUE	
67	WIND SPEED	5.6000	M/S	
68	MEASURED OZONE	.0030	PA	

69	TIME INCREMENT	60.0000	SECOND
70	PRESSURE	99030.0000	PA
71	TEMPERATURE	277.3000	K
72	RELATIVE HUMIDITY	81.0000	%
73	WIND DIRECTION	19.0000	DEGREE TRUE
74	WIND SPEED	5.6000	M/S
75	MEASURED OZONE	.0030	PA
76	TIME INCREMENT	70.0000	SECOND
77	PRESSURE	98360.0000	PA
78	TEMPERATURE	276.7000	K
79	RELATIVE HUMIDITY	81.0000	%
80	WIND DIRECTION	20.0000	DEGREE TRUE
81	WIND SPEED	5.6000	M/S
82	MEASURED OZONE	.0030	PA
83	TIME INCREMENT	80.0000	SECOND
84	PRESSURE	97770.0000	PA
85	TEMPERATURE	276.2000	K
86	RELATIVE HUMIDITY	83.0000	%
87	WIND DIRECTION	22.0000	DEGREE TRUE
88	WIND SPEED	5.7000	M/S
89	MEASURED OZONE	.0030	PA
90	TIME INCREMENT	90.0000	SECOND
91	PRESSURE	97240.0000	PA
92	TEMPERATURE	275.8000	K
93	RELATIVE HUMIDITY	85.0000	%
94	WIND DIRECTION	24.0000	DEGREE TRUE
95	WIND SPEED	5.8000	M/S
96	MEASURED OZONE	.0030	PA
97	TIME INCREMENT	100.0000	SECOND
98	PRESSURE	96690.0000	PA
99	TEMPERATURE	275.3000	K
100	RELATIVE HUMIDITY	87.0000	%

## 3.52 JASON data

RDB type 12, subtype 214

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                07 JULy 2003.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 5964
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE              98
    UPDATE SEQUENCE NUMBER           0
    FLAG (PRESENCE OF SECTION 2)    128
    BUFR MESSAGE TYPE                3
    BUFR MESSAGE SUBTYPE            214
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                            4
    MONTH                           1
    DAY                              1
    HOUR                             21
    MINUTE                           1
    VERSION NUMBER OF MASTER TABLE  11
    BUFR MASTER TABLE              0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                214
    YEAR                             2004
    MONTH                            1
    DAY                              1
    HOUR                             21
    MINUTE                           1
    SECOND                           6
    LATITUDE 1                       -65.83
    LONGITUDE 1                      114.50
    LATITUDE 2                       -63.65
    LONGITUDE 2                      130.76
    NUMBER OF OBSERVATIONS            128
    IDENTIFIER                        260
    TOTAL BUFR MESSAGE LENGTH        5964
    DAY (RDB INSERTION)              1
    HOUR (RDB INSERTION)             23
    MINUTE (RDB INSERTION)           11
    SECOND (RDB INSERTION)           50
    DAY (MDB ARRIVAL)                1
    HOUR (MDB ARRIVAL)               23
    MINUTE (MDB ARRIVAL)             9
    SECOND (MDB ARRIVAL)             28
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      154
    RESERVED                          0
    NUMBER OF DATA SUBSETS           128
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)
```



```

1 001007
2 025060
3 001033
4 002048
5 002048
6 005040
7 201134
8 007001
9 201000
10 202131
11 007005
12 202000
13 301011
14 301012
15 004007
16 005001
17 006001
18 008029
19 008074
20 008012
21 025095
22 025096
23 025097
24 204001
25 031021
26 022070
27 204000
28 008023
29 022070
30 021128
31 123002
32 008076
33 204001
34 031021
35 201129
36 021062
37 201000
38 204000
39 008023
40 021062
41 204001
42 031021
43 201134
44 007001
45 201000
46 204000
47 202131
48 007005
49 202000
50 008023
51 202131
52 007001
53 202000
54 021128
55 204001
56 031021
57 002173
58 204000
59 107003
60 201130
61 002121
62 201000
63 204001
64 031021
65 012163
66 204000
67 104002
68 002023
69 202129
70 011012
71 202000
72 013090
73 013091

```

## DATA DESCRIPTORS (EXPANDED)

```

1 001007 SATELLITE IDENTIFIER
2 025060 SOFTWARE IDENTIFICATION
3 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
4 002048 SATELLITE SENSOR INDICATOR
5 002048 SATELLITE SENSOR INDICATOR
6 005040 ORBIT NUMBER
7 007001 HEIGHT OF STATION
8 007005 HEIGHT INCREMENT
9 004001 YEAR
10 004002 MONTH
11 004003 DAY
12 004004 HOUR
13 004005 MINUTE
14 004007 SECOND WITHIN MINUTE
15 005001 LATITUDE (HIGH ACCURACY)

```

```
16 006001 LONGITUDE (HIGH ACCURACY)
17 008029 REMOTELY SENSED SURFACE TYPE
18 008074 ALTIMETER ECHO TYPE
19 008012 LAND/SEA QUALIFIER
20 025095 ALTIMETER STATE FLAG
21 025096 RADIOMETER STATE FLAG
22 025097 THREE DIMENSIONAL ERROR ESTIMATE OF THE NAVIGATOR ORBIT
23 031021 ASSOCIATED FIELD SIGNIFICANCE
24 999999 ASSOCIATED FIELD
25 022070 SIGNIFICANT WAVE HEIGHT
26 008023 FIRST ORDER STATISTICS
27 022070 SIGNIFICANT WAVE HEIGHT
28 021128 NUMBER OF VALID POINTS PER SECOND USED TO DERIVE PREVIOUS PARAME
29 008076 TYPE OF BAND
30 031021 ASSOCIATED FIELD SIGNIFICANCE
31 999999 ASSOCIATED FIELD
32 021062 BACKSCATTER
33 008023 FIRST ORDER STATISTICS
34 021062 BACKSCATTER
35 031021 ASSOCIATED FIELD SIGNIFICANCE
36 999999 ASSOCIATED FIELD
37 007001 HEIGHT OF STATION
38 007005 HEIGHT INCREMENT
39 008023 FIRST ORDER STATISTICS
40 007001 HEIGHT OF STATION
41 021128 NUMBER OF VALID POINTS PER SECOND USED TO DERIVE PREVIOUS PARAME
42 008076 TYPE OF BAND
43 031021 ASSOCIATED FIELD SIGNIFICANCE
44 999999 ASSOCIATED FIELD
45 021062 BACKSCATTER
46 008023 FIRST ORDER STATISTICS
47 021062 BACKSCATTER
48 031021 ASSOCIATED FIELD SIGNIFICANCE
49 999999 ASSOCIATED FIELD
50 007001 HEIGHT OF STATION
51 007005 HEIGHT INCREMENT
52 008023 FIRST ORDER STATISTICS
53 007001 HEIGHT OF STATION
54 021128 NUMBER OF VALID POINTS PER SECOND USED TO DERIVE PREVIOUS PARAME
55 031021 ASSOCIATED FIELD SIGNIFICANCE
56 999999 ASSOCIATED FIELD
57 002173 SQUARE OF THE OFF NADIR ANGLE
58 002121 MEAN FREQUENCY
59 031021 ASSOCIATED FIELD SIGNIFICANCE
60 999999 ASSOCIATED FIELD
61 012163 BRIGHTNESS TEMPERATURE
62 002121 MEAN FREQUENCY
63 031021 ASSOCIATED FIELD SIGNIFICANCE
64 999999 ASSOCIATED FIELD
65 012163 BRIGHTNESS TEMPERATURE
66 002121 MEAN FREQUENCY
67 031021 ASSOCIATED FIELD SIGNIFICANCE
68 999999 ASSOCIATED FIELD
69 012163 BRIGHTNESS TEMPERATURE
70 002023 SATELLITE DERIVED WIND COMPUTATION METHOD
71 011012 WIND SPEED AT 10 M
72 002023 SATELLITE DERIVED WIND COMPUTATION METHOD
73 011012 WIND SPEED AT 10 M
74 013090 RADIOMETER WATER VAPOUR CONTENT
75 013091 RADIOMETER LIQUID CONTENT
```

```
STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1
```

```
1 SATELLITE IDENT .2600000000E+03 CODE TABLE 001007
2 SOFTWARE IDENTI .6000000000E+02 NUMERIC
3 IDENTIFICATION .8500000000E+02 CODE TABLE 001033
4 SATELLITE SENSO .9000000000E+01 CODE TABLE 002048
5 SATELLITE SENSO .1000000000E+02 CODE TABLE 002048
6 ORBIT NUMBER .9180000000E+04 NUMERIC
7 HEIGHT OF STATI .1355890000E+07 M
8 HEIGHT INCREMEN .1740000000E+00 M
9 YEAR .2004000000E+04 YEAR
10 MONTH .1000000000E+01 MONTH
11 DAY .1000000000E+01 DAY
12 HOUR .2100000000E+02 HOUR
13 MINUTE .1000000000E+01 MINUTE
14 SECOND WITHIN M .5908828000E+01 SECOND
15 LATITUDE (HIGH -.6582644000E+02 DEGREE
16 LONGITUDE (HIGH .1144973600E+03 DEGREE
17 REMOTELY SENSED .0000000000E+00 CODE TABLE 008029
18 ALTIMETER ECHO .0000000000E+00 CODE TABLE 008074
19 LAND/SEA QUALIF .1000000000E+01 CODE TABLE 008012
20 ALTIMETER STATE .0000000000E+00 FLAG TABLE 025095
21 RADIOMETER STAT .4000000000E+01 FLAG TABLE 025096
22 THREE DIMENSION .9000000000E+01 CODE TABLE 025097
23 ASSOCIATED FIEL .1000000000E+01 CODE TABLE 031021
24 ASSOCIATED FIEL .0000000000E+00
25 SIGNIFICANT WAV .8040000000E+01 M
26 FIRST ORDER STA .1000000000E+02 CODE TABLE 008023
27 SIGNIFICANT WAV .7570000000E+01 M
28 NUMBER OF VALID .2000000000E+02 NUMERIC
29 TYPE OF BAND .0000000000E+00 CODE TABLE 008076
```

```

30 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
31 ASSOCIATED FIEL      .0000000000E+00
32 BACKSCATTER          .1606000000E+02 dB
33 FIRST ORDER STA      .1000000000E+02 CODE TABLE 008023
34 BACKSCATTER          .2170000000E+01 dB
35 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
36 ASSOCIATED FIEL      .0000000000E+00
37 HEIGHT OF STATI      .1355910000E+07 M
38 HEIGHT INCREMEN      .1220000000E+00 M
39 FIRST ORDER STA      .1000000000E+02 CODE TABLE 008023
40 HEIGHT OF STATI      .4569000000E+01 M
41 NUMBER OF VALID      .2000000000E+02 NUMERIC
42 TYPE OF BAND          .1000000000E+01 CODE TABLE 008076
43 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
44 ASSOCIATED FIEL      .0000000000E+00
45 BACKSCATTER          .2330000000E+02 dB
46 FIRST ORDER STA      .1000000000E+02 CODE TABLE 008023
47 BACKSCATTER          .1380000000E+01 dB
48 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
49 ASSOCIATED FIEL      .0000000000E+00
50 HEIGHT OF STATI      .1355913000E+07 M
51 HEIGHT INCREMEN      .4230000000E+00 M
52 FIRST ORDER STA      .1000000000E+02 CODE TABLE 008023
53 HEIGHT OF STATI      .9925000000E+01 M
54 NUMBER OF VALID      .2000000000E+02 NUMERIC
55 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
56 ASSOCIATED FIEL      .0000000000E+00
57 SQUARE OF THE O      .4900000000E-02 DEGREE**2
58 MEAN FREQUENCY       .1870000000E+11 Hz
59 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
60 ASSOCIATED FIEL      .0000000000E+00
61 BRIGHTNESS TEMP      .2193000000E+03 K
62 MEAN FREQUENCY       .2380000000E+11 Hz
63 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
64 ASSOCIATED FIEL      .0000000000E+00
65 BRIGHTNESS TEMP      .2172000000E+03 K
66 MEAN FREQUENCY       .3400000000E+11 Hz
67 ASSOCIATED FIEL      .1000000000E+01 CODE TABLE 031021
68 ASSOCIATED FIEL      .0000000000E+00
69 BRIGHTNESS TEMP      .2139700000E+03 K
70 SATELLITE DERIV      .8000000000E+01 CODE TABLE 002023
71 WIND SPEED AT 1      .8400000000E+00 M/S
72 SATELLITE DERIV      .9000000000E+01 CODE TABLE 002023
73 WIND SPEED AT 1      .4094000000E+02 M/S
74 RADIOMETER WATE      .7100000000E+01 KG/M**2
75 RADIOMETER LIQU      .0000000000E+00 KG/M**2

```

### 3.53 Geostationary radiances

RDB type 3, subtype 89

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                07 JULy 2003.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000980601,D0000980601
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 4040
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           0
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 5
    BUFR MESSAGE SUBTYPE             89
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             4
    MONTH                           1
    DAY                             1
    HOUR                             10
    MINUTE                           0
    VERSION NUMBER OF MASTER TABLE  6
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   3
    RDB DATA SUBTYPE                 89
    YEAR                             2004
    MONTH                            1
    DAY                              1
    HOUR                             10
    MINUTE                           0
    SECOND                           0
    LATITUDE 1                       -59.85
    LONGITUDE 1                      36.75
    LATITUDE 2                       -52.76
    LONGITUDE 2                      95.84
    NUMBER OF OBSERVATIONS            128
    IDENTIFIER                        52
    TOTAL BUFR MESSAGE LENGTH         4040
    DAY (RDB INSERTION)               1
    HOUR (RDB INSERTION)              10
    MINUTE (RDB INSERTION)            24
    SECOND (RDB INSERTION)            11
    DAY (MDB ARRIVAL)                 1
    HOUR (MDB ARRIVAL)                10
    MINUTE (MDB ARRIVAL)              15
    SECOND (MDB ARRIVAL)              30
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      292
    RESERVED                          0
    NUMBER OF DATA SUBSETS           128
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)
```

1 001007  
2 001031  
3 002196  
4 002221  
5 002222  
6 004001  
7 004002  
8 004003  
9 004004  
10 004005  
11 004006  
12 005001  
13 006001  
14 007024  
15 010002  
16 002252  
17 002023  
18 007004  
19 011001  
20 011002  
21 002197  
22 002198  
23 012193  
24 002197  
25 002198  
26 020193  
27 020194  
28 020012  
29 002197  
30 002198  
31 020193  
32 020194  
33 020012  
34 002197  
35 002198  
36 020193  
37 020194  
38 020012  
39 002197  
40 002198  
41 020193  
42 020194  
43 020012  
44 002197  
45 002198  
46 020193  
47 020194  
48 020012  
49 002197  
50 002198  
51 020193  
52 020194  
53 020012  
54 002252  
55 002199  
56 007004  
57 007004  
58 013003  
59 002252  
60 002254  
61 002251  
62 002197  
63 002198  
64 012195  
65 012196  
66 012063  
67 002252  
68 002254  
69 002251  
70 002197  
71 002198  
72 012195  
73 012196  
74 012063  
75 002252  
76 002254  
77 002251  
78 002197  
79 002198  
80 012195  
81 012196  
82 012063  
83 002252  
84 002254  
85 002251  
86 002197  
87 002198  
88 012195  
89 012196  
90 012063  
91 002252  
92 002254

93 002251  
94 002197  
95 002198  
96 012195  
97 012196  
98 012063  
99 002252  
100 002254  
101 002251  
102 002197  
103 002198  
104 012195  
105 012196  
106 012063  
107 222000  
108 236000  
109 101106  
110 031031  
111 001031  
112 001032  
113 033007  
114 033007  
115 033007  
116 033007  
117 033007  
118 033007  
119 033007  
120 222000  
121 237000  
122 001031  
123 001032  
124 033252  
125 033252  
126 033252  
127 033252  
128 033252  
129 033252  
130 033252  
131 224000  
132 237000  
133 001031  
134 001032  
135 008023  
136 224255  
137 224255  
138 224255  
139 224255  
140 224255  
141 224255  
142 224255

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
3 002196 SATELLITE CLASSIFICATION  
4 002221 SEGMENT SIZE AT NADIR IN X DIRECTION  
5 002222 SEGMENT SIZE AT NADIR IN Y DIRECTION  
6 004001 YEAR  
7 004002 MONTH  
8 004003 DAY  
9 004004 HOUR  
10 004005 MINUTE  
11 004006 SECOND  
12 005001 LATITUDE (HIGH ACCURACY)  
13 006001 LONGITUDE (HIGH ACCURACY)  
14 007024 SATELLITE ZENITH ANGLE  
15 010002 HEIGHT  
16 002252 SATELLITE INSTRUMENT DATA USED IN PROCESSING  
17 002023 SATELLITE DERIVED WIND COMPUTATION METHOD  
18 007004 PRESSURE  
19 011001 WIND DIRECTION  
20 011002 WIND SPEED  
21 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
22 002198 SATELLITE CHANNEL BAND WIDTH  
23 012193 COLDEST CLUSTER TEMPERATURE  
24 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
25 002198 SATELLITE CHANNEL BAND WIDTH  
26 020193 CLOUD AMOUNT IN SEGMENT  
27 020194 AMOUNT OF SEGMENT CLOUD FREE  
28 020012 CLOUD TYPE  
29 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
30 002198 SATELLITE CHANNEL BAND WIDTH  
31 020193 CLOUD AMOUNT IN SEGMENT  
32 020194 AMOUNT OF SEGMENT CLOUD FREE  
33 020012 CLOUD TYPE  
34 002197 SATELLITE CHANNEL CENTRE FREQUENCY  
35 002198 SATELLITE CHANNEL BAND WIDTH  
36 020193 CLOUD AMOUNT IN SEGMENT  
37 020194 AMOUNT OF SEGMENT CLOUD FREE  
38 020012 CLOUD TYPE  
39 002197 SATELLITE CHANNEL CENTRE FREQUENCY

40	002198	SATELLITE CHANNEL BAND WIDTH
41	020193	CLOUD AMOUNT IN SEGMENT
42	020194	AMOUNT OF SEGMENT CLOUD FREE
43	020012	CLOUD TYPE
44	002197	SATELLITE CHANNEL CENTRE FREQUENCY
45	002198	SATELLITE CHANNEL BAND WIDTH
46	020193	CLOUD AMOUNT IN SEGMENT
47	020194	AMOUNT OF SEGMENT CLOUD FREE
48	020012	CLOUD TYPE
49	002197	SATELLITE CHANNEL CENTRE FREQUENCY
50	002198	SATELLITE CHANNEL BAND WIDTH
51	020193	CLOUD AMOUNT IN SEGMENT
52	020194	AMOUNT OF SEGMENT CLOUD FREE
53	020012	CLOUD TYPE
54	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
55	002199	INTEGRATED MEAN HUMIDITY COMPUTATIONAL METHOD
56	007004	PRESSURE
57	007004	PRESSURE
58	013003	RELATIVE HUMIDITY
59	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
60	002254	RADIANCE TYPE
61	002251	RADIANCE COMPUTATIONAL METHOD
62	002197	SATELLITE CHANNEL CENTRE FREQUENCY
63	002198	SATELLITE CHANNEL BAND WIDTH
64	012195	SPECTRAL RADIANCE
65	012196	RADIANCE
66	012063	BRIGHTNESS TEMPERATURE
67	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
68	002254	RADIANCE TYPE
69	002251	RADIANCE COMPUTATIONAL METHOD
70	002197	SATELLITE CHANNEL CENTRE FREQUENCY
71	002198	SATELLITE CHANNEL BAND WIDTH
72	012195	SPECTRAL RADIANCE
73	012196	RADIANCE
74	012063	BRIGHTNESS TEMPERATURE
75	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
76	002254	RADIANCE TYPE
77	002251	RADIANCE COMPUTATIONAL METHOD
78	002197	SATELLITE CHANNEL CENTRE FREQUENCY
79	002198	SATELLITE CHANNEL BAND WIDTH
80	012195	SPECTRAL RADIANCE
81	012196	RADIANCE
82	012063	BRIGHTNESS TEMPERATURE
83	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
84	002254	RADIANCE TYPE
85	002251	RADIANCE COMPUTATIONAL METHOD
86	002197	SATELLITE CHANNEL CENTRE FREQUENCY
87	002198	SATELLITE CHANNEL BAND WIDTH
88	012195	SPECTRAL RADIANCE
89	012196	RADIANCE
90	012063	BRIGHTNESS TEMPERATURE
91	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
92	002254	RADIANCE TYPE
93	002251	RADIANCE COMPUTATIONAL METHOD
94	002197	SATELLITE CHANNEL CENTRE FREQUENCY
95	002198	SATELLITE CHANNEL BAND WIDTH
96	012195	SPECTRAL RADIANCE
97	012196	RADIANCE
98	012063	BRIGHTNESS TEMPERATURE
99	002252	SATELLITE INSTRUMENT DATA USED IN PROCESSING
100	002254	RADIANCE TYPE
101	002251	RADIANCE COMPUTATIONAL METHOD
102	002197	SATELLITE CHANNEL CENTRE FREQUENCY
103	002198	SATELLITE CHANNEL BAND WIDTH
104	012195	SPECTRAL RADIANCE
105	012196	RADIANCE
106	012063	BRIGHTNESS TEMPERATURE
107	222000	QUALITY INFORMATION FOLLOW
108	236000	BACKWARD REFERENCE BIT MAP
109	031031	DATA PRESENT INDICATOR
110	031031	DATA PRESENT INDICATOR
111	031031	DATA PRESENT INDICATOR
112	031031	DATA PRESENT INDICATOR
113	031031	DATA PRESENT INDICATOR
114	031031	DATA PRESENT INDICATOR
115	031031	DATA PRESENT INDICATOR
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132	031031	DATA PRESENT INDICATOR

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133 031031 DATA PRESENT INDICATOR
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211 031031 DATA PRESENT INDICATOR
212 031031 DATA PRESENT INDICATOR
213 031031 DATA PRESENT INDICATOR
214 031031 DATA PRESENT INDICATOR
215 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
216 001032 GENERATING APPLICATION
217 033007 % CONFIDENCE
218 033007 % CONFIDENCE
219 033007 % CONFIDENCE
220 033007 % CONFIDENCE
221 033007 % CONFIDENCE
222 033007 % CONFIDENCE
223 033007 % CONFIDENCE
224 222000 QUALITY INFORMATION FOLLOW
225 237000 USE PREVIOUSLY DEFINED BIT MAP
```



```

226 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
227 001032 GENERATING APPLICATION
228 033252 MANUAL-AUTOMATIC QUALITY CONTROL
229 033252 MANUAL-AUTOMATIC QUALITY CONTROL
230 033252 MANUAL-AUTOMATIC QUALITY CONTROL
231 033252 MANUAL-AUTOMATIC QUALITY CONTROL
232 033252 MANUAL-AUTOMATIC QUALITY CONTROL
233 033252 MANUAL-AUTOMATIC QUALITY CONTROL
234 033252 MANUAL-AUTOMATIC QUALITY CONTROL
235 224000 FIRST ORDER STATISTICS FOLLOW
236 237000 USE PREVIOUSLY DEFINED BIT MAP
237 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
238 001032 GENERATING APPLICATION
239 008023 FIRST ORDER STATISTICS
240 224255 RELATIVE HUMIDITY
241 224255 SPECTRAL RADIANCE
242 224255 RADIANCE
243 224255 BRIGHTNESS TEMPERATURE
244 224255 SPECTRAL RADIANCE
245 224255 RADIANCE
246 224255 BRIGHTNESS TEMPERATURE

```

```

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

```

```

 1 SATELLITE IDENT      .5200000000E+02 CODE TABLE  1007
 2 IDENTIFICATION      .2540000000E+03 CODE TABLE  1031
 3 SATELLITE CLASS      .3310000000E+03 CODE TABLE  2196
 4 SEGMENT SIZE AT      .8000000000E+05 M
 5 SEGMENT SIZE AT      .8000000000E+05 M
 6 YEAR                .2004000000E+04 YEAR
 7 MONTH              .1000000000E+01 MONTH
 8 DAY                .1000000000E+01 DAY
 9 HOUR              .1000000000E+02 HOUR
10 MINUTE            .0000000000E+00 MINUTE
11 SECOND            .0000000000E+00 SECOND
12 LATITUDE (HIGH)    -.5985179000E+02 DEGREE
13 LONGITUDE (HIGH)   .7642863000E+02 DEGREE
14 SATELLITE ZENIT     .6248000000E+02 DEGREE
15 HEIGHT             MISSING M
16 SATELLITE INSTR     MISSING FLAG TABLE  2252
17 SATELLITE DERIV     MISSING CODE TABLE  2023
18 PRESSURE           MISSING PA
19 WIND DIRECTION      MISSING DEGREE TRUE
20 WIND SPEED          MISSING M/S
21 SATELLITE CHANN     MISSING Hz
22 SATELLITE CHANN     MISSING Hz
23 COLDEST CLUSTER     MISSING K
24 SATELLITE CHANN     .4760000000E+14 Hz
25 SATELLITE CHANN     .7600000000E+13 Hz
26 CLOUD AMOUNT IN     .9200000000E+02 %
27 AMOUNT OF SEGME     .0000000000E+00 %
28 CLOUD TYPE          MISSING CODE TABLE  20012
29 SATELLITE CHANN     .2650000000E+14 Hz
30 SATELLITE CHANN     .3090000000E+13 Hz
31 CLOUD AMOUNT IN     .9200000000E+02 %
32 AMOUNT OF SEGME     .0000000000E+00 %
33 CLOUD TYPE          MISSING CODE TABLE  20012
34 SATELLITE CHANN     MISSING Hz
35 SATELLITE CHANN     MISSING Hz
36 CLOUD AMOUNT IN     MISSING %
37 AMOUNT OF SEGME     MISSING %
38 CLOUD TYPE          MISSING CODE TABLE  20012
39 SATELLITE CHANN     MISSING Hz
40 SATELLITE CHANN     MISSING Hz
41 CLOUD AMOUNT IN     MISSING %
42 AMOUNT OF SEGME     MISSING %
43 CLOUD TYPE          MISSING CODE TABLE  20012
44 SATELLITE CHANN     MISSING Hz
45 SATELLITE CHANN     MISSING Hz
46 CLOUD AMOUNT IN     MISSING %
47 AMOUNT OF SEGME     MISSING %
48 CLOUD TYPE          MISSING CODE TABLE  20012
49 SATELLITE CHANN     MISSING Hz
50 SATELLITE CHANN     MISSING Hz
51 CLOUD AMOUNT IN     MISSING %
52 AMOUNT OF SEGME     MISSING %
53 CLOUD TYPE          MISSING CODE TABLE  20012
54 SATELLITE INSTR     .4194304000E+07 FLAG TABLE  2252
55 INTEGRATED MEAN     .1000000000E+01 CODE TABLE  2199
56 PRESSURE           .6000000000E+05 PA
57 PRESSURE           .3000000000E+05 PA
58 RELATIVE HUMIDI     MISSING %
59 SATELLITE INSTR     .4194304000E+07 FLAG TABLE  2252
60 RADIANCE TYPE       .2000000000E+01 CODE TABLE  2254
61 RADIANCE COMPUT     .2000000000E+01 CODE TABLE  2251
62 SATELLITE CHANN     .4760000000E+14 Hz
63 SATELLITE CHANN     .7600000000E+13 Hz
64 SPECTRAL RADIAN     MISSING W/M**2*STER*M** (-1)
65 RADIANCE           MISSING W/M**2*STER
66 BRIGHTNESS TEMP     MISSING K
67 SATELLITE INSTR     .4194304000E+07 FLAG TABLE  2252
68 RADIANCE TYPE       .2000000000E+01 CODE TABLE  2254

```

69	RADIANCE COMPUT	.2000000000E+01	CODE TABLE	2251
70	SATELLITE CHANN	.2650000000E+14	Hz	
71	SATELLITE CHANN	.3090000000E+13	Hz	
72	SPECTRAL RADIAN		MISSING W/M**2*STER*M** (-1)	
73	RADIANCE		MISSING W/M**2*STER	
74	BRIGHTNESS TEMP		MISSING K	
75	SATELLITE INSTR		MISSING FLAG TABLE	2252
76	RADIANCE TYPE		MISSING CODE TABLE	2254
77	RADIANCE COMPUT		MISSING CODE TABLE	2251
78	SATELLITE CHANN		MISSING Hz	
79	SATELLITE CHANN		MISSING Hz	
80	SPECTRAL RADIAN		MISSING W/M**2*STER*M** (-1)	
81	RADIANCE		MISSING W/M**2*STER	
82	BRIGHTNESS TEMP		MISSING K	
83	SATELLITE INSTR		MISSING FLAG TABLE	2252
84	RADIANCE TYPE		MISSING CODE TABLE	2254
85	RADIANCE COMPUT		MISSING CODE TABLE	2251
86	SATELLITE CHANN		MISSING Hz	
87	SATELLITE CHANN		MISSING Hz	
88	SPECTRAL RADIAN		MISSING W/M**2*STER*M** (-1)	
89	RADIANCE		MISSING W/M**2*STER	
90	BRIGHTNESS TEMP		MISSING K	
91	SATELLITE INSTR		MISSING FLAG TABLE	2252
92	RADIANCE TYPE		MISSING CODE TABLE	2254
93	RADIANCE COMPUT		MISSING CODE TABLE	2251
94	SATELLITE CHANN		MISSING Hz	
95	SATELLITE CHANN		MISSING Hz	
96	SPECTRAL RADIAN		MISSING W/M**2*STER*M** (-1)	
97	RADIANCE		MISSING W/M**2*STER	
98	BRIGHTNESS TEMP		MISSING K	
99	SATELLITE INSTR		MISSING FLAG TABLE	2252
100	RADIANCE TYPE		MISSING CODE TABLE	2254
101	RADIANCE COMPUT		MISSING CODE TABLE	2251
102	SATELLITE CHANN		MISSING Hz	
103	SATELLITE CHANN		MISSING Hz	
104	SPECTRAL RADIAN		MISSING W/M**2*STER*M** (-1)	
105	RADIANCE		MISSING W/M**2*STER	
106	BRIGHTNESS TEMP		MISSING K	
107	QUALITY INFORMA	.0000000000E+00		
108	BACKWARD REFERE	.0000000000E+00		
109	DATA PRESENT IN		MISSING NUMERIC	
110	DATA PRESENT IN		MISSING NUMERIC	
111	DATA PRESENT IN		MISSING NUMERIC	
112	DATA PRESENT IN		MISSING NUMERIC	
113	DATA PRESENT IN		MISSING NUMERIC	
114	DATA PRESENT IN		MISSING NUMERIC	
115	DATA PRESENT IN		MISSING NUMERIC	
116	DATA PRESENT IN		MISSING NUMERIC	
117	DATA PRESENT IN		MISSING NUMERIC	
118	DATA PRESENT IN		MISSING NUMERIC	
119	DATA PRESENT IN		MISSING NUMERIC	
120	DATA PRESENT IN		MISSING NUMERIC	
121	DATA PRESENT IN		MISSING NUMERIC	
122	DATA PRESENT IN		MISSING NUMERIC	
123	DATA PRESENT IN		MISSING NUMERIC	
124	DATA PRESENT IN		MISSING NUMERIC	
125	DATA PRESENT IN		MISSING NUMERIC	
126	DATA PRESENT IN		MISSING NUMERIC	
127	DATA PRESENT IN		MISSING NUMERIC	
128	DATA PRESENT IN		MISSING NUMERIC	
129	DATA PRESENT IN		MISSING NUMERIC	
130	DATA PRESENT IN		MISSING NUMERIC	
131	DATA PRESENT IN		MISSING NUMERIC	
132	DATA PRESENT IN		MISSING NUMERIC	
133	DATA PRESENT IN		MISSING NUMERIC	
134	DATA PRESENT IN		MISSING NUMERIC	
135	DATA PRESENT IN		MISSING NUMERIC	
136	DATA PRESENT IN		MISSING NUMERIC	
137	DATA PRESENT IN		MISSING NUMERIC	
138	DATA PRESENT IN		MISSING NUMERIC	
139	DATA PRESENT IN		MISSING NUMERIC	
140	DATA PRESENT IN		MISSING NUMERIC	
141	DATA PRESENT IN		MISSING NUMERIC	
142	DATA PRESENT IN		MISSING NUMERIC	
143	DATA PRESENT IN		MISSING NUMERIC	
144	DATA PRESENT IN		MISSING NUMERIC	
145	DATA PRESENT IN		MISSING NUMERIC	
146	DATA PRESENT IN		MISSING NUMERIC	
147	DATA PRESENT IN		MISSING NUMERIC	
148	DATA PRESENT IN		MISSING NUMERIC	
149	DATA PRESENT IN		MISSING NUMERIC	
150	DATA PRESENT IN		MISSING NUMERIC	
151	DATA PRESENT IN		MISSING NUMERIC	
152	DATA PRESENT IN		MISSING NUMERIC	
153	DATA PRESENT IN		MISSING NUMERIC	
154	DATA PRESENT IN		MISSING NUMERIC	
155	DATA PRESENT IN		MISSING NUMERIC	
156	DATA PRESENT IN		MISSING NUMERIC	
157	DATA PRESENT IN		MISSING NUMERIC	
158	DATA PRESENT IN		MISSING NUMERIC	
159	DATA PRESENT IN		MISSING NUMERIC	
160	DATA PRESENT IN		MISSING NUMERIC	
161	DATA PRESENT IN		MISSING NUMERIC	

162	DATA PRESENT IN	MISSING	NUMERIC	
163	DATA PRESENT IN	MISSING	NUMERIC	
164	DATA PRESENT IN	MISSING	NUMERIC	
165	DATA PRESENT IN	MISSING	NUMERIC	
166	DATA PRESENT IN	.0000000000E+00	NUMERIC	
167	DATA PRESENT IN	MISSING	NUMERIC	
168	DATA PRESENT IN	MISSING	NUMERIC	
169	DATA PRESENT IN	MISSING	NUMERIC	
170	DATA PRESENT IN	MISSING	NUMERIC	
171	DATA PRESENT IN	MISSING	NUMERIC	
172	DATA PRESENT IN	.0000000000E+00	NUMERIC	
173	DATA PRESENT IN	.0000000000E+00	NUMERIC	
174	DATA PRESENT IN	.0000000000E+00	NUMERIC	
175	DATA PRESENT IN	MISSING	NUMERIC	
176	DATA PRESENT IN	MISSING	NUMERIC	
177	DATA PRESENT IN	MISSING	NUMERIC	
178	DATA PRESENT IN	MISSING	NUMERIC	
179	DATA PRESENT IN	MISSING	NUMERIC	
180	DATA PRESENT IN	.0000000000E+00	NUMERIC	
181	DATA PRESENT IN	.0000000000E+00	NUMERIC	
182	DATA PRESENT IN	.0000000000E+00	NUMERIC	
183	DATA PRESENT IN	MISSING	NUMERIC	
184	DATA PRESENT IN	MISSING	NUMERIC	
185	DATA PRESENT IN	MISSING	NUMERIC	
186	DATA PRESENT IN	MISSING	NUMERIC	
187	DATA PRESENT IN	MISSING	NUMERIC	
188	DATA PRESENT IN	MISSING	NUMERIC	
189	DATA PRESENT IN	MISSING	NUMERIC	
190	DATA PRESENT IN	MISSING	NUMERIC	
191	DATA PRESENT IN	MISSING	NUMERIC	
192	DATA PRESENT IN	MISSING	NUMERIC	
193	DATA PRESENT IN	MISSING	NUMERIC	
194	DATA PRESENT IN	MISSING	NUMERIC	
195	DATA PRESENT IN	MISSING	NUMERIC	
196	DATA PRESENT IN	MISSING	NUMERIC	
197	DATA PRESENT IN	MISSING	NUMERIC	
198	DATA PRESENT IN	MISSING	NUMERIC	
199	DATA PRESENT IN	MISSING	NUMERIC	
200	DATA PRESENT IN	MISSING	NUMERIC	
201	DATA PRESENT IN	MISSING	NUMERIC	
202	DATA PRESENT IN	MISSING	NUMERIC	
203	DATA PRESENT IN	MISSING	NUMERIC	
204	DATA PRESENT IN	MISSING	NUMERIC	
205	DATA PRESENT IN	MISSING	NUMERIC	
206	DATA PRESENT IN	MISSING	NUMERIC	
207	DATA PRESENT IN	MISSING	NUMERIC	
208	DATA PRESENT IN	MISSING	NUMERIC	
209	DATA PRESENT IN	MISSING	NUMERIC	
210	DATA PRESENT IN	MISSING	NUMERIC	
211	DATA PRESENT IN	MISSING	NUMERIC	
212	DATA PRESENT IN	MISSING	NUMERIC	
213	DATA PRESENT IN	MISSING	NUMERIC	
214	DATA PRESENT IN	MISSING	NUMERIC	
215	IDENTIFICATION	.2540000000E+03	CODE TABLE	1031
216	GENERATING APPL	.1000000000E+01	CODE TABLE	1032
217	% CONFIDENCE	MISSING	NUMERIC	
218	% CONFIDENCE	MISSING	NUMERIC	
219	% CONFIDENCE	MISSING	NUMERIC	
220	% CONFIDENCE	MISSING	NUMERIC	
221	% CONFIDENCE	MISSING	NUMERIC	
222	% CONFIDENCE	MISSING	NUMERIC	
223	% CONFIDENCE	MISSING	NUMERIC	
224	QUALITY INFORMA	.0000000000E+00		
225	USE PREVIOUSLY	.0000000000E+00		
226	IDENTIFICATION	.2540000000E+03	CODE TABLE	1031
227	GENERATING APPL	.1000000000E+01	CODE TABLE	1032
228	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
229	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
230	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
231	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
232	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
233	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
234	MANUAL-AUTOMATI	.3000000000E+01	CODE TABLE	33252
235	FIRST ORDER STA	.0000000000E+00		
236	USE PREVIOUSLY	.0000000000E+00		
237	IDENTIFICATION	.2540000000E+03	CODE TABLE	1031
238	GENERATING APPL	.1000000000E+01	CODE TABLE	1032
239	FIRST ORDER STA	.1000000000E+02	CODE TABLE	8023
240	RELATIVE HUMIDI	MISSING	%	
241	SPECTRAL RADIANCE	MISSING	W/M**2*STER*M** (-1)	
242	RADIANCE	MISSING	W/M**2*STER	
243	BRIGHTNESS TEMP	MISSING	K	
244	SPECTRAL RADIANCE	MISSING	W/M**2*STER*M** (-1)	
245	RADIANCE	MISSING	W/M**2*STER	
246	BRIGHTNESS TEMP	MISSING	K	

### 3.54 Envisat MERIS data

RDB type 3, subtype 212

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                07 JULy 2003.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 2038
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 5
    BUFR MESSAGE SUBTYPE             212
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                             103
    MONTH                            5
    DAY                              48
    HOUR                             40
    MINUTE                           83
    VERSION NUMBER OF MASTER TABLE   11
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   3
    RDB DATA SUBTYPE                212
    YEAR                             2003
    MONTH                            12
    DAY                              29
    HOUR                             5
    MINUTE                           48
    SECOND                           40
    LATITUDE 1                       52.14
    LONGITUDE 1                       75.51
    LATITUDE 2                       53.80
    LONGITUDE 2                       82.88
    NUMBER OF OBSERVATIONS            128
    IDENTIFIER                        60
    TOTAL BUFR MESSAGE LENGTH        2038
    DAY (RDB INSERTION)              29
    HOUR (RDB INSERTION)             13
    MINUTE (RDB INSERTION)           43
    SECOND (RDB INSERTION)            5
    DAY (MDB ARRIVAL)                29
    HOUR (MDB ARRIVAL)               13
    MINUTE (MDB ARRIVAL)             42
    SECOND (MDB ARRIVAL)             30
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      10
    RESERVED                          0
    NUMBER OF DATA SUBSETS           128
    FLAG (DATA TYPE/DATA COMPRESSION) 192

    DATA DESCRIPTORS (UNEXPANDED)
```

1 312050

DATA DESCRIPTORS (EXPANDED)

```

1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001096 ACQUISITION STATION IDENTIFIER
4 025061 SOFTWARE IDENTIFICATION
5 005040 ORBIT NUMBER
6 004001 YEAR
7 004002 MONTH
8 004003 DAY
9 004004 HOUR
10 004005 MINUTE
11 004006 SECOND
12 005001 LATITUDE (HIGH ACCURACY)
13 006001 LONGITUDE (HIGH ACCURACY)
14 007025 SOLAR ZENITH ANGLE
15 005022 SOLAR AZIMUTH
16 010080 VIEWING ZENITH ANGLE
17 027080 VIEWING AZIMUTH ANGLE
18 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
19 007004 PRESSURE
20 013093 CLOUD OPTICAL THICKNESS
21 008003 VERTICAL SIGNIFICANCE (SATELLITE OBSERVATIONS)
22 007004 PRESSURE
23 007004 PRESSURE
24 013095 TOTAL COLUMN WATER VAPOUR

```

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

1 SATELLITE IDENT	.6000000000E+02	CODE TABLE 001007	
2 SATELLITE INSTR	.1740000000E+03	CODE TABLE 002019	
3 ACQUISITION STA	.1020000000E+04	CCITTIA5	PDHS-K
4 SOFTWARE IDENTI	.1290120000E+06	CCITTIA5	MERIS/4.07
5 ORBIT NUMBER	.9564000000E+04	NUMERIC	
6 YEAR	.2003000000E+04	YEAR	
7 MONTH	.1200000000E+02	MONTH	
8 DAY	.2900000000E+02	DAY	
9 HOUR	.5000000000E+01	HOUR	
10 MINUTE	.4800000000E+02	MINUTE	
11 SECOND	.4000000000E+02	SECOND	
12 LATITUDE (HIGH	.5213884000E+02	DEGREE	
13 LONGITUDE (HIGH	.8288442000E+02	DEGREE	
14 SOLAR ZENITH AN	.7594000000E+02	DEGREE	
15 SOLAR AZIMUTH	.1701700000E+03	DEGREE TRUE	
16 VIEWING ZENITH	.4061000000E+02	DEGREE	
17 VIEWING AZIMUTH	.2933600000E+03	DEGREE TRUE	
18 VERTICAL SIGNIF	.2000000000E+01	CODE TABLE 008003	
19 PRESSURE		MISSING PA	
20 CLOUD OPTICAL T		MISSING NUMERIC	
21 VERTICAL SIGNIF		MISSING CODE TABLE 008003	
22 PRESSURE	.1000000000E+01	PA	
23 PRESSURE	.1031700000E+06	PA	
24 TOTAL COLUMN WA	.0000000000E+00	KG/M**2	

### 3.55 Envisat ASAR data

RDB type 12, subtype 210

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                07 JULY 2003.

Your path for bufr tables is :
/home/ma/emos/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 6380
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                12
    BUFR MESSAGE SUBTYPE             210
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             3
    MONTH                            12
    DAY                              29
    HOUR                             5
    MINUTE                           40
    VERSION NUMBER OF MASTER TABLE  11
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                210
    YEAR                             2003
    MONTH                            12
    DAY                              29
    HOUR                             5
    MINUTE                           40
    SECOND                           26
    LATITUDE 1                       81.17
    LONGITUDE 1                      106.01
    LATITUDE 2                       81.81
    LONGITUDE 2                      110.23
    NUMBER OF OBSERVATIONS            2
    IDENTIFIER                        60
    TOTAL BUFR MESSAGE LENGTH        6380
    DAY (RDB INSERTION)              29
    HOUR (RDB INSERTION)              9
    MINUTE (RDB INSERTION)           39
    SECOND (RDB INSERTION)            7
    DAY (MDB ARRIVAL)                29
    HOUR (MDB ARRIVAL)                9
    MINUTE (MDB ARRIVAL)             34
    SECOND (MDB ARRIVAL)             48
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      10
    RESERVED                          0
    NUMBER OF DATA SUBSETS           2
    FLAG (DATA TYPE/DATA COMPRESSION) 192
```

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DATA DESCRIPTORS (UNEXPANDED)

1 312051

DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001096 ACQUISITION STATION IDENTIFIER
4 025061 SOFTWARE IDENTIFICATION
5 005040 ORBIT NUMBER
6 008075 ASCENDING/DSCENDING ORBIT QUALIFIER
7 004001 YEAR
8 004002 MONTH
9 004003 DAY
10 004004 HOUR
11 004005 MINUTE
12 004006 SECOND
13 005001 LATITUDE (HIGH ACCURACY)
14 006001 LONGITUDE (HIGH ACCURACY)
15 001012 DIRECTION OF MOTION OF MOVING OBSERVING PLATFORM
16 001013 SPEED OF MOTION OF MOVING OBSERVING PLATFORM
17 010032 SATELLITE DISTANCE TO EARTH CENTRE
18 010033 ALTITUDE (PLATFORM TO ELLIPSOID)
19 010034 EARTH RADIUS
20 007002 HEIGHT OR ALTITUDE
21 008012 LAND/SEA QUALIFIER
22 025110 IMAGE PROCESSING SUMMARY
23 025111 NUMBER OF INPUT DATA GAPS
24 025102 NUMBER OF MISSING LINES EXCLUDING DATA GAPS
25 002104 ANTENNA POLARISATION
26 025103 NUMBER OF DIRECTIONAL BINS
27 025104 NUMBER OF WAVELENGTH BINS
28 025105 FIRST DIRECTIONAL BIN
29 025106 DIRECTIONAL BIN STEP
30 025107 FIRST WAVELENGTH BIN
31 025108 LAST WAVELENGTH BIN
32 002111 RADAR INCIDENCE ANGLE
33 002121 MEAN FREQUENCY
34 002026 CROSS TRACK RESOLUTION
35 002027 ALONG TRACK RESOLUTION
36 021130 SPECTRUM TOTAL ENERGY
37 021131 SPECTRUM MAX ENERGY
38 021132 DIRECTION OF SPECTRUM MAX ON HIGHER RESOLUTION GRID
39 021133 WAVELENGTH OF SPECTRUM MAX ON HIGHER RESOLUTION GRID
40 021064 CLUTTER NOISE ESTIMATE
41 025014 AZIMUTH CLUTTER CUT-OFF
42 021134 RANGE RESOLUTION OF CROSS COVARIANCE SPECTRUM
43 005030 DIRECTION (SPECTRAL)
44 006030 WAVE NUMBER (SPECTRAL)
45 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
46 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
47 006030 WAVE NUMBER (SPECTRAL)
48 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
49 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
...
...
...

1345 006030 WAVE NUMBER (SPECTRAL)
1346 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1347 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1348 006030 WAVE NUMBER (SPECTRAL)
1349 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1350 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1351 006030 WAVE NUMBER (SPECTRAL)
1352 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1353 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1354 006030 WAVE NUMBER (SPECTRAL)
1355 021135 REAL PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1356 021136 IMAGINARY PART OF CROSS SPECTRA POLAR GRID NUMBER OF BINS
1357 033044 ASAR QUALITY INFORMATION

STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

1 SATELLITE IDENT .6000000000E+02 CODE TABLE 001007
2 SATELLITE INSTR .1430000000E+03 CODE TABLE 002019
3 ACQUISITION STA .1020000000E+04 CCITTIA5 PDHS-K
4 SOFTWARE IDENTI .3012000000E+04 CCITTIA5 ASAR/3.06
5 ORBIT NUMBER .9564000000E+04 NUMERIC
6 ASCENDING/DESCE .1000000000E+01 CODE TABLE 008075
7 YEAR .2003000000E+04 YEAR
8 MONTH .1200000000E+02 MONTH
9 DAY .2900000000E+02 DAY
10 HOUR .5000000000E+01 HOUR
11 MINUTE .4000000000E+02 MINUTE
12 SECOND .2600000000E+02 SECOND
13 LATITUDE (HIGH .8180906000E+02 DEGREE
14 LONGITUDE (HIGH .1102284700E+03 DEGREE
15 DIRECTION OF MO .2360000000E+03 DEGREE TRUE
16 SPEED OF MOTION .6652000000E+04 M/S

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17 SATELLITE DISTA      .7195566400E+07 M
18 ALTITUDE (PLATF     .7966751000E+06 M
19 EARTH RADIUS         .6398891200E+07 M
20 HEIGHT OR ALTI      .0000000000E+00 M
21 LAND/SEA QUALIF     .1000000000E+01 CODE TABLE 008012
22 IMAGE PROCESSIN     .3200000000E+03 FLAG TABLE 025110
23 NUMBER OF INPUT     .0000000000E+00 NUMERIC
24 NUMBER OF MISSI     .0000000000E+00 NUMERIC
25 ANTENNA POLARIS     .1000000000E+01 CODE TABLE 002104
26 NUMBER OF DIREC     .3600000000E+02 NUMERIC
27 NUMBER OF WAVEL     .2400000000E+02 NUMERIC
28 FIRST DIRECTION     .0000000000E+00 DEGREES
29 DIRECTIONAL BIN     .1000000000E+02 DEGREES
30 FIRST WAVELENGH     .8000000000E+03 M
31 LAST WAVELENGHT     .3000000000E+02 M
32 RADAR INCIDENCE     .2280000000E+02 DEGREE
33 MEAN FREQUENCY      .5300000000E+10 Hz
34 CROSS TRACK RES     .8300000000E+01 M
35 ALONG TRACK RES     .4030000000E+01 M
36 SPECTRUM TOTAL      .2212420000E+00 NUMERIC
37 SPECTRUM MAX EN     .3100000000E-04 NUMERIC
38 DIRECTION OF SP     .0000000000E+00 DEGREES
39 WAVELENGHT OF S     .8000000000E+03 M
40 CLUTTER NOISE E     .0000000000E+00 NUMERIC
41 AZIMUTH CLUTTER     .1060000000E+03 NUMERIC
42 RANGE RESOLUTIO     .2012700000E+02 RAD/M
43 DIRECTION (SPEC     .0000000000E+00 DEGREE
44 WAVE NUMBER (SP     .7850000000E-02 RAD/M
45 REAL PART OF CR     .8320800000E+02 NUMERIC
46 IMAGINARY PART      .7760000000E+00 NUMERIC
47 WAVE NUMBER (SP     .9060000000E-02 RAD/M
48 REAL PART OF CR     .7270800000E+02 NUMERIC
49 IMAGINARY PART      .3210000000E+00 NUMERIC
...
...
...
1345 WAVE NUMBER (SP   .1364800000E+00 RAD/M
1346 REAL PART OF CR   .1970000000E+00 NUMERIC
1347 IMAGINARY PART    .3100000000E-01 NUMERIC
1348 WAVE NUMBER (SP   .1574200000E+00 RAD/M
1349 REAL PART OF CR   -.1310000000E+00 NUMERIC
1350 IMAGINARY PART    .5200000000E-01 NUMERIC
1351 WAVE NUMBER (SP   .1815800000E+00 RAD/M
1352 REAL PART OF CR   -.1310000000E+00 NUMERIC
1353 IMAGINARY PART    .1350000000E+00 NUMERIC
1354 WAVE NUMBER (SP   .2094400000E+00 RAD/M
1355 REAL PART OF CR   -.1310000000E+00 NUMERIC
1356 IMAGINARY PART    .9300000000E-01 NUMERIC
1357 ASAR QUALITY IN   .8328000000E+04 FLAG TABLE 033044
```



## 3.56 Envisat AATSR data

RDB type 12, subtype 220

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 3036
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER            1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 12
    BUFR MESSAGE SUBTYPE              220
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                              3
    MONTH                             12
    DAY                               27
    HOUR                              6
    MINUTE                             39
    VERSION NUMBER OF MASTER TABLE   11
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                 220
    YEAR                             2003
    MONTH                             12
    DAY                               27
    HOUR                              6
    MINUTE                             39
    SECOND                             17
    LATITUDE 1                        75.83
    LONGITUDE 1                       -180.00
    LATITUDE 2                        82.83
    LONGITUDE 2                       -179.67
    NUMBER OF OBSERVATIONS             128
    IDENTIFIER                         60
    TOTAL BUFR MESSAGE LENGTH          3036
    DAY (RDB INSERTION)                27
    HOUR (RDB INSERTION)               18
    MINUTE (RDB INSERTION)             39
    SECOND (RDB INSERTION)             52
    DAY (MDB ARRIVAL)                  27
    HOUR (MDB ARRIVAL)                 18
    MINUTE (MDB ARRIVAL)               38
    SECOND (MDB ARRIVAL)               45
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    CORRECTION NUMBER                  0
    PART OF MESSAGE                    0
    QUALITY CONTROL % CONF             70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)        10
    RESERVED                           0
    NUMBER OF DATA SUBSETS             128
    FLAG (DATA TYPE/DATA COMPRESSION)  192

    DATA DESCRIPTORS (UNEXPANDED)

```

1 312045

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001096 ACQUISITION STATION IDENTIFIER
4 025061 SOFTWARE IDENTIFICATION
5 005040 ORBIT NUMBER
6 004001 YEAR
7 004002 MONTH
8 004003 DAY
9 004004 HOUR
10 004005 MINUTE
11 004006 SECOND
12 005001 LATITUDE (HIGH ACCURACY)
13 006001 LONGITUDE (HIGH ACCURACY)
14 007002 HEIGHT OR ALTITUDE
15 012180 AVERAGED 12 MICRON BT for ALL CLEAR PIXELS AT NADIR
16 012181 AVERAGED 11 MICRON BT for ALL CLEAR PIXELS AT NADIR
17 012182 AVERAGED 3.7 MICRON BT for ALL CLEAR PIXELS AT NADIR
18 012183 AVERAGED 12 MICRON BT for ALL CLEAR PIXELS, FORWARD VIEW
19 012184 AVERAGED 11 MICRON BT for ALL CLEAR PIXELS, FORWARD VIEW
20 012185 AVERAGED 3.7 MICRON BT for ALL CLEAR PIXELS, FORWARD VIEW
21 002174 MEAN ACROSS TRACK PIXEL NUMBER
22 021086 NUMBER OF PIXELS IN NADIR ONLY, AVERAGE
23 012186 MEAN NADIR SEA SURFACE TEMPERATURE
24 021087 NUMBER OF PIXELS IN DUAL VIEW, AVERAGE
25 012187 MEAN DUAL VIEW SEA SURFACE TEMPERATURE
26 033043 AST CONFIDENCE
```

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

```
1 SATELLITE IDENT .6000000000E+02 CODE TABLE 001007
2 SATELLITE INSTR .1000000000E+02 CODE TABLE 002019
3 ACQUISITION STA .1020000000E+04 CCITTIA5 PDHS-K
4 SOFTWARE IDENTI .1290120000E+06 CCITTIA5
5 ORBIT NUMBER .9535000000E+04 NUMERIC
6 YEAR .2003000000E+04 YEAR
7 MONTH .1200000000E+02 MONTH
8 DAY .2700000000E+02 DAY
9 HOUR .6000000000E+01 HOUR
10 MINUTE .3900000000E+02 MINUTE
11 SECOND .1700000000E+02 SECOND
12 LATITUDE (HIGH .7583335114E+02 DEGREE
13 LONGITUDE (HIGH -.1800000000E+03 DEGREE
14 HEIGHT OR ALTIT .0000000000E+00 M
15 AVERAGED 12 MIC MISSING K
16 AVERAGED 11 MIC MISSING K
17 AVERAGED 3.7 MI MISSING K
18 AVERAGED 12 MIC MISSING K
19 AVERAGED 11 MIC MISSING K
20 AVERAGED 3.7 MI MISSING K
21 MEAN ACROSS TRA MISSING NUMERIC
22 NUMBER OF PIXEL .0000000000E+00 NUMERIC
23 MEAN NADIR SEA MISSING K
24 NUMBER OF PIXEL .0000000000E+00 NUMERIC
25 MEAN DUAL VIEW MISSING K
26 AST CONFIDENCE .0000000000E+00 FLAG TABLE 033043
```

## 3.57 Envisat GOMOS data

RDB type 12, subtype 206

```

ECMWF

BUFR DECODING SOFTWARE VERSION - 6.1
25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

LENGTH OF SECTION 0 (BYTES)      8
TOTAL LENGTH OF BUFR MESSAGE (BYTES) 2810
BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

LENGTH OF SECTION 1 (BYTES)      18
BUFR EDITION NUMBER              3
ORIGINATING SUB-CENTRE           0
ORIGINATING CENTRE               98
UPDATE SEQUENCE NUMBER           1
FLAG (PRESENCE OF SECTION 2)     128
BUFR MESSAGE TYPE                 3
BUFR MESSAGE SUBTYPE             206
VERSION NUMBER OF LOCAL TABLE   1
YEAR                             3
MONTH                           12
DAY                             27
HOUR                             5
MINUTE                           2
VERSION NUMBER OF MASTER TABLE  11
BUFR MASTER TABLE               0
1
    BUFR SECTION 2

LENGTH OF SECTION 2              52

REPORT DATA BASE KEY

RDB DATA TYPE                    2
RDB DATA SUBTYPE                 206
YEAR                             2003
MONTH                           12
DAY                             27
HOUR                             5
MINUTE                           2
SECOND                           32
LATITUDE 1                       72.66
LONGITUDE 1                      -86.72
LATITUDE 2                       72.66
LONGITUDE 2                      -86.72
NUMBER OF OBSERVATIONS            1
IDENTIFIER                       60
TOTAL BUFR MESSAGE LENGTH        2810
DAY (RDB INSERTION)              27
HOUR (RDB INSERTION)             12
MINUTE (RDB INSERTION)           58
SECOND (RDB INSERTION)           19
DAY (MDB ARRIVAL)                27
HOUR (MDB ARRIVAL)               12
MINUTE (MDB ARRIVAL)             54
SECOND (MDB ARRIVAL)             11
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
CORRECTION NUMBER                0
PART OF MESSAGE                  0
QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

LENGTH OF SECTION 3 (BYTES)      32
RESERVED                          0
NUMBER OF DATA SUBSETS           1
FLAG (DATA TYPE/DATA COMPRESSION) 192

```

## DATA DESCRIPTORS (UNEXPANDED)

1 310030  
2 224000  
3 236000  
4 101000  
5 031002  
6 031031  
7 001031  
8 001032  
9 008023  
10 101000  
11 031002  
12 224255

## DATA DESCRIPTORS (EXPANDED)

1 001007 SATELLITE IDENTIFIER  
2 002019 SATELLITE INSTRUMENTS  
3 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE  
4 002172 PRODUCT TYPE FOR RETRIEVED ATMOSPHERIC GASES  
5 004001 YEAR  
6 004002 MONTH  
7 004003 DAY  
8 004004 HOUR  
9 004005 MINUTE  
10 004006 SECOND  
11 005001 LATITUDE (HIGH ACCURACY)  
12 006001 LONGITUDE (HIGH ACCURACY)  
13 027001 LATITUDE (HIGH ACCURACY)  
14 028001 LONGITUDE (HIGH ACCURACY)  
15 027001 LATITUDE (HIGH ACCURACY)  
16 028001 LONGITUDE (HIGH ACCURACY)  
17 027001 LATITUDE (HIGH ACCURACY)  
18 028001 LONGITUDE (HIGH ACCURACY)  
19 027001 LATITUDE (HIGH ACCURACY)  
20 028001 LONGITUDE (HIGH ACCURACY)  
21 007022 SOLAR ELEVATION  
22 005043 FIELD OF VIEW NUMBER  
23 020010 CLOUD COVER (TOTAL)  
24 020016 PRESSURE AT TOP OF CLOUD  
25 033003 QUALITY INFORMATION  
26 010040 NUMBER OF RETRIEVED LAYERS  
27 031001 DELAYED DESCRIPTOR REPLICATION FACTOR  
28 007004 PRESSURE  
29 007004 PRESSURE  
30 015020 INTEGRATED OZONE DENSITY  
31 010002 HEIGHT  
32 012101 TEMPERATURE/DRY BULB TEMPERATURE  
33 013098 INTEGRATED WATER VAPOUR DENSITY  
34 007004 PRESSURE  
35 007004 PRESSURE  
36 015020 INTEGRATED OZONE DENSITY  
37 010002 HEIGHT  
38 012101 TEMPERATURE/DRY BULB TEMPERATURE  
39 013098 INTEGRATED WATER VAPOUR DENSITY  
40 007004 PRESSURE  
41 007004 PRESSURE  
42 015020 INTEGRATED OZONE DENSITY  
43 010002 HEIGHT  
44 012101 TEMPERATURE/DRY BULB TEMPERATURE  
45 013098 INTEGRATED WATER VAPOUR DENSITY  
46 007004 PRESSURE  
47 007004 PRESSURE  
48 015020 INTEGRATED OZONE DENSITY  
49 010002 HEIGHT  
50 012101 TEMPERATURE/DRY BULB TEMPERATURE  
51 013098 INTEGRATED WATER VAPOUR DENSITY  
52 007004 PRESSURE  
53 007004 PRESSURE  
54 015020 INTEGRATED OZONE DENSITY  
55 010002 HEIGHT  
56 012101 TEMPERATURE/DRY BULB TEMPERATURE  
57 013098 INTEGRATED WATER VAPOUR DENSITY  
58 007004 PRESSURE  
59 007004 PRESSURE  
60 015020 INTEGRATED OZONE DENSITY  
61 010002 HEIGHT  
62 012101 TEMPERATURE/DRY BULB TEMPERATURE  
63 013098 INTEGRATED WATER VAPOUR DENSITY  
64 007004 PRESSURE  
65 007004 PRESSURE  
66 015020 INTEGRATED OZONE DENSITY  
67 010002 HEIGHT  
68 012101 TEMPERATURE/DRY BULB TEMPERATURE  
69 013098 INTEGRATED WATER VAPOUR DENSITY  
70 007004 PRESSURE  
71 007004 PRESSURE  
72 015020 INTEGRATED OZONE DENSITY  
73 010002 HEIGHT  
74 012101 TEMPERATURE/DRY BULB TEMPERATURE

75	013098	INTEGRATED WATER VAPOUR DENSITY
76	007004	PRESSURE
77	007004	PRESSURE
78	015020	INTEGRATED OZONE DENSITY
79	010002	HEIGHT
80	012101	TEMPERATURE/DRY BULB TEMPERATURE
81	013098	INTEGRATED WATER VAPOUR DENSITY
82	007004	PRESSURE
83	007004	PRESSURE
84	015020	INTEGRATED OZONE DENSITY
85	010002	HEIGHT
86	012101	TEMPERATURE/DRY BULB TEMPERATURE
87	013098	INTEGRATED WATER VAPOUR DENSITY
88	007004	PRESSURE
89	007004	PRESSURE
90	015020	INTEGRATED OZONE DENSITY
91	010002	HEIGHT
92	012101	TEMPERATURE/DRY BULB TEMPERATURE
93	013098	INTEGRATED WATER VAPOUR DENSITY
94	007004	PRESSURE
95	007004	PRESSURE
96	015020	INTEGRATED OZONE DENSITY
97	010002	HEIGHT
98	012101	TEMPERATURE/DRY BULB TEMPERATURE
99	013098	INTEGRATED WATER VAPOUR DENSITY
100	007004	PRESSURE
101	007004	PRESSURE
102	015020	INTEGRATED OZONE DENSITY
103	010002	HEIGHT
104	012101	TEMPERATURE/DRY BULB TEMPERATURE
105	013098	INTEGRATED WATER VAPOUR DENSITY
106	007004	PRESSURE
107	007004	PRESSURE
108	015020	INTEGRATED OZONE DENSITY
109	010002	HEIGHT
110	012101	TEMPERATURE/DRY BULB TEMPERATURE
111	013098	INTEGRATED WATER VAPOUR DENSITY
112	007004	PRESSURE
113	007004	PRESSURE
114	015020	INTEGRATED OZONE DENSITY
115	010002	HEIGHT
116	012101	TEMPERATURE/DRY BULB TEMPERATURE
117	013098	INTEGRATED WATER VAPOUR DENSITY
118	007004	PRESSURE
119	007004	PRESSURE
120	015020	INTEGRATED OZONE DENSITY
121	010002	HEIGHT
122	012101	TEMPERATURE/DRY BULB TEMPERATURE
123	013098	INTEGRATED WATER VAPOUR DENSITY
124	007004	PRESSURE
125	007004	PRESSURE
126	015020	INTEGRATED OZONE DENSITY
127	010002	HEIGHT
128	012101	TEMPERATURE/DRY BULB TEMPERATURE
129	013098	INTEGRATED WATER VAPOUR DENSITY
130	007004	PRESSURE
131	007004	PRESSURE
132	015020	INTEGRATED OZONE DENSITY
133	010002	HEIGHT
134	012101	TEMPERATURE/DRY BULB TEMPERATURE
135	013098	INTEGRATED WATER VAPOUR DENSITY
136	007004	PRESSURE
137	007004	PRESSURE
138	015020	INTEGRATED OZONE DENSITY
139	010002	HEIGHT
140	012101	TEMPERATURE/DRY BULB TEMPERATURE
141	013098	INTEGRATED WATER VAPOUR DENSITY
142	007004	PRESSURE
143	007004	PRESSURE
144	015020	INTEGRATED OZONE DENSITY
145	010002	HEIGHT
146	012101	TEMPERATURE/DRY BULB TEMPERATURE
147	013098	INTEGRATED WATER VAPOUR DENSITY
148	007004	PRESSURE
149	007004	PRESSURE
150	015020	INTEGRATED OZONE DENSITY
151	010002	HEIGHT
152	012101	TEMPERATURE/DRY BULB TEMPERATURE
153	013098	INTEGRATED WATER VAPOUR DENSITY
154	007004	PRESSURE
155	007004	PRESSURE
156	015020	INTEGRATED OZONE DENSITY
157	010002	HEIGHT
158	012101	TEMPERATURE/DRY BULB TEMPERATURE
159	013098	INTEGRATED WATER VAPOUR DENSITY
160	007004	PRESSURE
161	007004	PRESSURE
162	015020	INTEGRATED OZONE DENSITY
163	010002	HEIGHT
164	012101	TEMPERATURE/DRY BULB TEMPERATURE
165	013098	INTEGRATED WATER VAPOUR DENSITY
166	007004	PRESSURE
167	007004	PRESSURE

168	015020	INTEGRATED OZONE DENSITY
169	010002	HEIGHT
170	012101	TEMPERATURE/DRY BULB TEMPERATURE
171	013098	INTEGRATED WATER VAPOUR DENSITY
172	007004	PRESSURE
173	007004	PRESSURE
174	015020	INTEGRATED OZONE DENSITY
175	010002	HEIGHT
176	012101	TEMPERATURE/DRY BULB TEMPERATURE
177	013098	INTEGRATED WATER VAPOUR DENSITY
178	007004	PRESSURE
179	007004	PRESSURE
180	015020	INTEGRATED OZONE DENSITY
181	010002	HEIGHT
182	012101	TEMPERATURE/DRY BULB TEMPERATURE
183	013098	INTEGRATED WATER VAPOUR DENSITY
184	007004	PRESSURE
185	007004	PRESSURE
186	015020	INTEGRATED OZONE DENSITY
187	010002	HEIGHT
188	012101	TEMPERATURE/DRY BULB TEMPERATURE
189	013098	INTEGRATED WATER VAPOUR DENSITY
190	007004	PRESSURE
191	007004	PRESSURE
192	015020	INTEGRATED OZONE DENSITY
193	010002	HEIGHT
194	012101	TEMPERATURE/DRY BULB TEMPERATURE
195	013098	INTEGRATED WATER VAPOUR DENSITY
196	007004	PRESSURE
197	007004	PRESSURE
198	015020	INTEGRATED OZONE DENSITY
199	010002	HEIGHT
200	012101	TEMPERATURE/DRY BULB TEMPERATURE
201	013098	INTEGRATED WATER VAPOUR DENSITY
202	007004	PRESSURE
203	007004	PRESSURE
204	015020	INTEGRATED OZONE DENSITY
205	010002	HEIGHT
206	012101	TEMPERATURE/DRY BULB TEMPERATURE
207	013098	INTEGRATED WATER VAPOUR DENSITY
208	007004	PRESSURE
209	007004	PRESSURE
210	015020	INTEGRATED OZONE DENSITY
211	010002	HEIGHT
212	012101	TEMPERATURE/DRY BULB TEMPERATURE
213	013098	INTEGRATED WATER VAPOUR DENSITY
214	007004	PRESSURE
215	007004	PRESSURE
216	015020	INTEGRATED OZONE DENSITY
217	010002	HEIGHT
218	012101	TEMPERATURE/DRY BULB TEMPERATURE
219	013098	INTEGRATED WATER VAPOUR DENSITY
220	007004	PRESSURE
221	007004	PRESSURE
222	015020	INTEGRATED OZONE DENSITY
223	010002	HEIGHT
224	012101	TEMPERATURE/DRY BULB TEMPERATURE
225	013098	INTEGRATED WATER VAPOUR DENSITY
226	007004	PRESSURE
227	007004	PRESSURE
228	015020	INTEGRATED OZONE DENSITY
229	010002	HEIGHT
230	012101	TEMPERATURE/DRY BULB TEMPERATURE
231	013098	INTEGRATED WATER VAPOUR DENSITY
232	007004	PRESSURE
233	007004	PRESSURE
234	015020	INTEGRATED OZONE DENSITY
235	010002	HEIGHT
236	012101	TEMPERATURE/DRY BULB TEMPERATURE
237	013098	INTEGRATED WATER VAPOUR DENSITY
238	007004	PRESSURE
239	007004	PRESSURE
240	015020	INTEGRATED OZONE DENSITY
241	010002	HEIGHT
242	012101	TEMPERATURE/DRY BULB TEMPERATURE
243	013098	INTEGRATED WATER VAPOUR DENSITY
244	007004	PRESSURE
245	007004	PRESSURE
246	015020	INTEGRATED OZONE DENSITY
247	010002	HEIGHT
248	012101	TEMPERATURE/DRY BULB TEMPERATURE
249	013098	INTEGRATED WATER VAPOUR DENSITY
250	007004	PRESSURE
251	007004	PRESSURE
252	015020	INTEGRATED OZONE DENSITY
253	010002	HEIGHT
254	012101	TEMPERATURE/DRY BULB TEMPERATURE
255	013098	INTEGRATED WATER VAPOUR DENSITY
256	007004	PRESSURE
257	007004	PRESSURE
258	015020	INTEGRATED OZONE DENSITY
259	010002	HEIGHT
260	012101	TEMPERATURE/DRY BULB TEMPERATURE

261	013098	INTEGRATED WATER VAPOUR DENSITY
262	007004	PRESSURE
263	007004	PRESSURE
264	015020	INTEGRATED OZONE DENSITY
265	010002	HEIGHT
266	012101	TEMPERATURE/DRY BULB TEMPERATURE
267	013098	INTEGRATED WATER VAPOUR DENSITY
268	007004	PRESSURE
269	007004	PRESSURE
270	015020	INTEGRATED OZONE DENSITY
271	010002	HEIGHT
272	012101	TEMPERATURE/DRY BULB TEMPERATURE
273	013098	INTEGRATED WATER VAPOUR DENSITY
274	007004	PRESSURE
275	007004	PRESSURE
276	015020	INTEGRATED OZONE DENSITY
277	010002	HEIGHT
278	012101	TEMPERATURE/DRY BULB TEMPERATURE
279	013098	INTEGRATED WATER VAPOUR DENSITY
280	007004	PRESSURE
281	007004	PRESSURE
282	015020	INTEGRATED OZONE DENSITY
283	010002	HEIGHT
284	012101	TEMPERATURE/DRY BULB TEMPERATURE
285	013098	INTEGRATED WATER VAPOUR DENSITY
286	007004	PRESSURE
287	007004	PRESSURE
288	015020	INTEGRATED OZONE DENSITY
289	010002	HEIGHT
290	012101	TEMPERATURE/DRY BULB TEMPERATURE
291	013098	INTEGRATED WATER VAPOUR DENSITY
292	007004	PRESSURE
293	007004	PRESSURE
294	015020	INTEGRATED OZONE DENSITY
295	010002	HEIGHT
296	012101	TEMPERATURE/DRY BULB TEMPERATURE
297	013098	INTEGRATED WATER VAPOUR DENSITY
298	007004	PRESSURE
299	007004	PRESSURE
300	015020	INTEGRATED OZONE DENSITY
301	010002	HEIGHT
302	012101	TEMPERATURE/DRY BULB TEMPERATURE
303	013098	INTEGRATED WATER VAPOUR DENSITY
304	007004	PRESSURE
305	007004	PRESSURE
306	015020	INTEGRATED OZONE DENSITY
307	010002	HEIGHT
308	012101	TEMPERATURE/DRY BULB TEMPERATURE
309	013098	INTEGRATED WATER VAPOUR DENSITY
310	007004	PRESSURE
311	007004	PRESSURE
312	015020	INTEGRATED OZONE DENSITY
313	010002	HEIGHT
314	012101	TEMPERATURE/DRY BULB TEMPERATURE
315	013098	INTEGRATED WATER VAPOUR DENSITY
316	007004	PRESSURE
317	007004	PRESSURE
318	015020	INTEGRATED OZONE DENSITY
319	010002	HEIGHT
320	012101	TEMPERATURE/DRY BULB TEMPERATURE
321	013098	INTEGRATED WATER VAPOUR DENSITY
322	007004	PRESSURE
323	007004	PRESSURE
324	015020	INTEGRATED OZONE DENSITY
325	010002	HEIGHT
326	012101	TEMPERATURE/DRY BULB TEMPERATURE
327	013098	INTEGRATED WATER VAPOUR DENSITY
328	007004	PRESSURE
329	007004	PRESSURE
330	015020	INTEGRATED OZONE DENSITY
331	010002	HEIGHT
332	012101	TEMPERATURE/DRY BULB TEMPERATURE
333	013098	INTEGRATED WATER VAPOUR DENSITY
334	007004	PRESSURE
335	007004	PRESSURE
336	015020	INTEGRATED OZONE DENSITY
337	010002	HEIGHT
338	012101	TEMPERATURE/DRY BULB TEMPERATURE
339	013098	INTEGRATED WATER VAPOUR DENSITY
340	007004	PRESSURE
341	007004	PRESSURE
342	015020	INTEGRATED OZONE DENSITY
343	010002	HEIGHT
344	012101	TEMPERATURE/DRY BULB TEMPERATURE
345	013098	INTEGRATED WATER VAPOUR DENSITY
346	007004	PRESSURE
347	007004	PRESSURE
348	015020	INTEGRATED OZONE DENSITY
349	010002	HEIGHT
350	012101	TEMPERATURE/DRY BULB TEMPERATURE
351	013098	INTEGRATED WATER VAPOUR DENSITY
352	007004	PRESSURE
353	007004	PRESSURE

354	015020	INTEGRATED OZONE DENSITY
355	010002	HEIGHT
356	012101	TEMPERATURE/DRY BULB TEMPERATURE
357	013098	INTEGRATED WATER VAPOUR DENSITY
358	007004	PRESSURE
359	007004	PRESSURE
360	015020	INTEGRATED OZONE DENSITY
361	010002	HEIGHT
362	012101	TEMPERATURE/DRY BULB TEMPERATURE
363	013098	INTEGRATED WATER VAPOUR DENSITY
364	007004	PRESSURE
365	007004	PRESSURE
366	015020	INTEGRATED OZONE DENSITY
367	010002	HEIGHT
368	012101	TEMPERATURE/DRY BULB TEMPERATURE
369	013098	INTEGRATED WATER VAPOUR DENSITY
370	007004	PRESSURE
371	007004	PRESSURE
372	015020	INTEGRATED OZONE DENSITY
373	010002	HEIGHT
374	012101	TEMPERATURE/DRY BULB TEMPERATURE
375	013098	INTEGRATED WATER VAPOUR DENSITY
376	007004	PRESSURE
377	007004	PRESSURE
378	015020	INTEGRATED OZONE DENSITY
379	010002	HEIGHT
380	012101	TEMPERATURE/DRY BULB TEMPERATURE
381	013098	INTEGRATED WATER VAPOUR DENSITY
382	007004	PRESSURE
383	007004	PRESSURE
384	015020	INTEGRATED OZONE DENSITY
385	010002	HEIGHT
386	012101	TEMPERATURE/DRY BULB TEMPERATURE
387	013098	INTEGRATED WATER VAPOUR DENSITY
388	007004	PRESSURE
389	007004	PRESSURE
390	015020	INTEGRATED OZONE DENSITY
391	010002	HEIGHT
392	012101	TEMPERATURE/DRY BULB TEMPERATURE
393	013098	INTEGRATED WATER VAPOUR DENSITY
394	007004	PRESSURE
395	007004	PRESSURE
396	015020	INTEGRATED OZONE DENSITY
397	010002	HEIGHT
398	012101	TEMPERATURE/DRY BULB TEMPERATURE
399	013098	INTEGRATED WATER VAPOUR DENSITY
400	007004	PRESSURE
401	007004	PRESSURE
402	015020	INTEGRATED OZONE DENSITY
403	010002	HEIGHT
404	012101	TEMPERATURE/DRY BULB TEMPERATURE
405	013098	INTEGRATED WATER VAPOUR DENSITY
406	007004	PRESSURE
407	007004	PRESSURE
408	015020	INTEGRATED OZONE DENSITY
409	010002	HEIGHT
410	012101	TEMPERATURE/DRY BULB TEMPERATURE
411	013098	INTEGRATED WATER VAPOUR DENSITY
412	007004	PRESSURE
413	007004	PRESSURE
414	015020	INTEGRATED OZONE DENSITY
415	010002	HEIGHT
416	012101	TEMPERATURE/DRY BULB TEMPERATURE
417	013098	INTEGRATED WATER VAPOUR DENSITY
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421	010002	HEIGHT
422	012101	TEMPERATURE/DRY BULB TEMPERATURE
423	013098	INTEGRATED WATER VAPOUR DENSITY
424	007004	PRESSURE
425	007004	PRESSURE
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429	013098	INTEGRATED WATER VAPOUR DENSITY
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431	007004	PRESSURE
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434	012101	TEMPERATURE/DRY BULB TEMPERATURE
435	013098	INTEGRATED WATER VAPOUR DENSITY
436	007004	PRESSURE
437	007004	PRESSURE
438	015020	INTEGRATED OZONE DENSITY
439	010002	HEIGHT
440	012101	TEMPERATURE/DRY BULB TEMPERATURE
441	013098	INTEGRATED WATER VAPOUR DENSITY
442	007004	PRESSURE
443	007004	PRESSURE
444	015020	INTEGRATED OZONE DENSITY
445	010002	HEIGHT
446	012101	TEMPERATURE/DRY BULB TEMPERATURE



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447 013098 INTEGRATED WATER VAPOUR DENSITY
448 007004 PRESSURE
449 007004 PRESSURE
450 015020 INTEGRATED OZONE DENSITY
451 010002 HEIGHT
452 012101 TEMPERATURE/DRY BULB TEMPERATURE
453 013098 INTEGRATED WATER VAPOUR DENSITY
454 224000 FIRST ORDER STATISTICS FOLLOW
455 236000 BACKWARD REFERENCE BIT MAP
456 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
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884 001032 GENERATING APPLICATION
885 008023 FIRST ORDER STATISTICS
886 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
887 224255 INTEGRATED OZONE DENSITY
888 224255 TEMPERATURE/DRY BULB TEMPERATURE
889 224255 INTEGRATED WATER VAPOUR DENSITY
890 224255 INTEGRATED OZONE DENSITY
891 224255 TEMPERATURE/DRY BULB TEMPERATURE
892 224255 INTEGRATED WATER VAPOUR DENSITY
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909 224255 TEMPERATURE/DRY BULB TEMPERATURE
910 224255 INTEGRATED WATER VAPOUR DENSITY
911 224255 INTEGRATED OZONE DENSITY
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1098 224255 TEMPERATURE/DRY BULB TEMPERATURE  
1099 224255 INTEGRATED WATER VAPOUR DENSITY

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ENDING SUBSET TO BE PRINTED : 1

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2	SATELLITE INSTR	.1720000000E+03	CODE TABLE 002019
3	IDENTIFICATION	.2540000000E+03	CODE TABLE 001033
4	PRODUCT TYPE FO	.4000000000E+01	CODE TABLE 002172
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7	DAY	.2700000000E+02	DAY
8	HOURL	.5000000000E+01	HOURL
9	MINUTE	.2000000000E+01	MINUTE
10	SECOND	.3200000000E+02	SECOND
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24	PRESSURE AT TOP		MISSING PA
25	QUALITY INFORMA		MISSING CODE TABLE 033003
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27	DELAYED DESCRIP	.7100000000E+02	NUMERIC
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29	PRESSURE	.1399999976E+01	PA
30	INTEGRATED OZON		MISSING KG/M**2
31	HEIGHT	.7955000000E+05	M
32	TEMPERATURE/DRY	.2215200043E+03	K
33	INTEGRATED WATE		MISSING KG/M**2
34	PRESSURE	.1399999976E+01	PA
35	PRESSURE	.1700000048E+01	PA
36	INTEGRATED OZON		MISSING KG/M**2
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41	PRESSURE	.2000000000E+01	PA
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57	INTEGRATED WATE		MISSING KG/M**2
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59	PRESSURE	.3700000048E+01	PA
60	INTEGRATED OZON		MISSING KG/M**2
61	HEIGHT	.7287000000E+05	M
62	TEMPERATURE/DRY	.2296199951E+03	K
63	INTEGRATED WATE		MISSING KG/M**2
64	PRESSURE	.3700000048E+01	PA
65	PRESSURE	.4500000000E+01	PA
66	INTEGRATED OZON		MISSING KG/M**2
67	HEIGHT	.7153000000E+05	M
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69	INTEGRATED WATE		MISSING KG/M**2
70	PRESSURE	.4500000000E+01	PA
71	PRESSURE	.5400000095E+01	PA
72	INTEGRATED OZON		MISSING KG/M**2
73	HEIGHT	.7019000000E+05	M
74	TEMPERATURE/DRY	.2352599945E+03	K
75	INTEGRATED WATE		MISSING KG/M**2
76	PRESSURE	.5400000095E+01	PA
77	PRESSURE	.6500000000E+01	PA
78	INTEGRATED OZON		MISSING KG/M**2
79	HEIGHT	.6885000000E+05	M
80	TEMPERATURE/DRY	.2385800018E+03	K
81	INTEGRATED WATE		MISSING KG/M**2
82	PRESSURE	.6500000000E+01	PA
83	PRESSURE	.7900000095E+01	PA
84	INTEGRATED OZON		MISSING KG/M**2
85	HEIGHT	.6751000000E+05	M
86	TEMPERATURE/DRY	.2420800018E+03	K
87	INTEGRATED WATE		MISSING KG/M**2



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88 PRESSURE .7900000095E+01 PA
89 PRESSURE .9399999619E+01 PA
90 INTEGRATED OZON MISSING KG/M**2
91 HEIGHT .6616000000E+05 M
92 TEMPERATURE/DRY .2456699982E+03 K
93 INTEGRATED WATE MISSING KG/M**2
94 PRESSURE .9399999619E+01 PA
95 PRESSURE .1130000019E+02 PA
96 INTEGRATED OZON MISSING KG/M**2
97 HEIGHT .6482000000E+05 M
98 TEMPERATURE/DRY .2492299957E+03 K
99 INTEGRATED WATE MISSING KG/M**2
100 PRESSURE .1130000019E+02 PA
101 PRESSURE .1350000000E+02 PA
102 INTEGRATED OZON MISSING KG/M**2
103 HEIGHT .6347000000E+05 M
104 TEMPERATURE/DRY .2526799927E+03 K
105 INTEGRATED WATE MISSING KG/M**2
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107 PRESSURE .1610000038E+02 PA
108 INTEGRATED OZON MISSING KG/M**2
109 HEIGHT .6213000000E+05 M
110 TEMPERATURE/DRY .2558699951E+03 K
111 INTEGRATED WATE MISSING KG/M**2
112 PRESSURE .1610000038E+02 PA
113 PRESSURE .1920000076E+02 PA
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115 HEIGHT .6078000000E+05 M
116 TEMPERATURE/DRY .2586900024E+03 K
117 INTEGRATED WATE MISSING KG/M**2
118 PRESSURE .1920000076E+02 PA
119 PRESSURE .2279999924E+02 PA
120 INTEGRATED OZON MISSING KG/M**2
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122 TEMPERATURE/DRY .2610199890E+03 K
123 INTEGRATED WATE MISSING KG/M**2
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125 PRESSURE .2710000038E+02 PA
126 INTEGRATED OZON MISSING KG/M**2
127 HEIGHT .5809000000E+05 M
128 TEMPERATURE/DRY .2628200073E+03 K
129 INTEGRATED WATE MISSING KG/M**2
130 PRESSURE .2710000038E+02 PA
131 PRESSURE .3220000076E+02 PA
132 INTEGRATED OZON MISSING KG/M**2
133 HEIGHT .5674000000E+05 M
134 TEMPERATURE/DRY .2640299988E+03 K
135 INTEGRATED WATE MISSING KG/M**2
136 PRESSURE .3220000076E+02 PA
137 PRESSURE .3820000076E+02 PA
138 INTEGRATED OZON MISSING KG/M**2
139 HEIGHT .5539000000E+05 M
140 TEMPERATURE/DRY .2646600037E+03 K
141 INTEGRATED WATE MISSING KG/M**2
142 PRESSURE .3820000076E+02 PA
143 PRESSURE .4540000153E+02 PA
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145 HEIGHT .5404000000E+05 M
146 TEMPERATURE/DRY .2647399902E+03 K
147 INTEGRATED WATE MISSING KG/M**2
148 PRESSURE .4540000153E+02 PA
149 PRESSURE .5390000153E+02 PA
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151 HEIGHT .5269000000E+05 M
152 TEMPERATURE/DRY .2644700012E+03 K
153 INTEGRATED WATE MISSING KG/M**2
154 PRESSURE .5390000153E+02 PA
155 PRESSURE .6400000000E+02 PA
156 INTEGRATED OZON MISSING KG/M**2
157 HEIGHT .5135000000E+05 M
158 TEMPERATURE/DRY .2674299927E+03 K
159 INTEGRATED WATE MISSING KG/M**2
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161 PRESSURE .7600000000E+02 PA
162 INTEGRATED OZON MISSING KG/M**2
163 HEIGHT .5000000000E+05 M
164 TEMPERATURE/DRY .2688599854E+03 K
165 INTEGRATED WATE MISSING KG/M**2
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167 PRESSURE .9030000305E+02 PA
168 INTEGRATED OZON MISSING KG/M**2
169 HEIGHT .4865000000E+05 M
170 TEMPERATURE/DRY .2695000000E+03 K
171 INTEGRATED WATE MISSING KG/M**2
172 PRESSURE .9030000305E+02 PA
173 PRESSURE .1073000031E+03 PA
174 INTEGRATED OZON MISSING KG/M**2
175 HEIGHT .4730000000E+05 M
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177 INTEGRATED WATE MISSING KG/M**2
178 PRESSURE .1073000031E+03 PA
179 PRESSURE .1276999969E+03 PA
180 INTEGRATED OZON MISSING KG/M**2

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181	HEIGHT	.4596000000E+05	M
182	TEMPERATURE/DRY	.2640700073E+03	K
183	INTEGRATED WATE	MISSING	KG/M**2
184	PRESSURE	.1276999969E+03	PA
185	PRESSURE	.1523000031E+03	PA
186	INTEGRATED OZON	MISSING	KG/M**2
187	HEIGHT	.4462000000E+05	M
188	TEMPERATURE/DRY	.2607099915E+03	K
189	INTEGRATED WATE	MISSING	KG/M**2
190	PRESSURE	.1523000031E+03	PA
191	PRESSURE	.1821999969E+03	PA
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193	HEIGHT	.4328000000E+05	M
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195	INTEGRATED WATE	MISSING	KG/M**2
196	PRESSURE	.1821999969E+03	PA
197	PRESSURE	.2181999969E+03	PA
198	INTEGRATED OZON	MISSING	KG/M**2
199	HEIGHT	.4194000000E+05	M
200	TEMPERATURE/DRY	.2538099976E+03	K
201	INTEGRATED WATE	MISSING	KG/M**2
202	PRESSURE	.2181999969E+03	PA
203	PRESSURE	.2617000122E+03	PA
204	INTEGRATED OZON	MISSING	KG/M**2
205	HEIGHT	.4061000000E+05	M
206	TEMPERATURE/DRY	.2503099976E+03	K
207	INTEGRATED WATE	MISSING	KG/M**2
208	PRESSURE	.2617000122E+03	PA
209	PRESSURE	.3137999878E+03	PA
210	INTEGRATED OZON	MISSING	KG/M**2
211	HEIGHT	.3928000000E+05	M
212	TEMPERATURE/DRY	.2494400024E+03	K
213	INTEGRATED WATE	MISSING	KG/M**2
214	PRESSURE	.3137999878E+03	PA
215	PRESSURE	.3762000122E+03	PA
216	INTEGRATED OZON	MISSING	KG/M**2
217	HEIGHT	.3796000000E+05	M
218	TEMPERATURE/DRY	.2472200012E+03	K
219	INTEGRATED WATE	MISSING	KG/M**2
220	PRESSURE	.3762000122E+03	PA
221	PRESSURE	.4511000061E+03	PA
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223	HEIGHT	.3665000000E+05	M
224	TEMPERATURE/DRY	.2415399933E+03	K
225	INTEGRATED WATE	MISSING	KG/M**2
226	PRESSURE	.4511000061E+03	PA
227	PRESSURE	.5407000122E+03	PA
228	INTEGRATED OZON	MISSING	KG/M**2
229	HEIGHT	.3536000000E+05	M
230	TEMPERATURE/DRY	.2369400024E+03	K
231	INTEGRATED WATE	MISSING	KG/M**2
232	PRESSURE	.5407000122E+03	PA
233	PRESSURE	.6480000000E+03	PA
234	INTEGRATED OZON	MISSING	KG/M**2
235	HEIGHT	.3408000000E+05	M
236	TEMPERATURE/DRY	.2334299927E+03	K
237	INTEGRATED WATE	MISSING	KG/M**2
238	PRESSURE	.6480000000E+03	PA
239	PRESSURE	.7760000000E+03	PA
240	INTEGRATED OZON	MISSING	KG/M**2
241	HEIGHT	.3283000000E+05	M
242	TEMPERATURE/DRY	.2285000000E+03	K
243	INTEGRATED WATE	MISSING	KG/M**2
244	PRESSURE	.7760000000E+03	PA
245	PRESSURE	.9297999878E+03	PA
246	INTEGRATED OZON	MISSING	KG/M**2
247	HEIGHT	.3161000000E+05	M
248	TEMPERATURE/DRY	.2224199982E+03	K
249	INTEGRATED WATE	MISSING	KG/M**2
250	PRESSURE	.9297999878E+03	PA
251	PRESSURE	.1115099976E+04	PA
252	INTEGRATED OZON	MISSING	KG/M**2
253	HEIGHT	.3042000000E+05	M
254	TEMPERATURE/DRY	.2181199951E+03	K
255	INTEGRATED WATE	MISSING	KG/M**2
256	PRESSURE	.1115099976E+04	PA
257	PRESSURE	.1335900024E+04	PA
258	INTEGRATED OZON	MISSING	KG/M**2
259	HEIGHT	.2923000000E+05	M
260	TEMPERATURE/DRY	.2162799988E+03	K
261	INTEGRATED WATE	MISSING	KG/M**2
262	PRESSURE	.1335900024E+04	PA
263	PRESSURE	.1594400024E+04	PA
264	INTEGRATED OZON	MISSING	KG/M**2
265	HEIGHT	.2808000000E+05	M
266	TEMPERATURE/DRY	.2159299927E+03	K
267	INTEGRATED WATE	MISSING	KG/M**2
268	PRESSURE	.1594400024E+04	PA
269	PRESSURE	.1891800049E+04	PA
270	INTEGRATED OZON	MISSING	KG/M**2
271	HEIGHT	.2695000000E+05	M
272	TEMPERATURE/DRY	.2161900024E+03	K
273	INTEGRATED WATE	MISSING	KG/M**2

274	PRESSURE	.1891800049E+04	PA
275	PRESSURE	.2229699951E+04	PA
276	INTEGRATED OZON	MISSING	KG/M**2
277	HEIGHT	.2588000000E+05	M
278	TEMPERATURE/DRY	.2163300018E+03	K
279	INTEGRATED WATE	MISSING	KG/M**2
280	PRESSURE	.2229699951E+04	PA
281	PRESSURE	.2612000000E+04	PA
282	INTEGRATED OZON	MISSING	KG/M**2
283	HEIGHT	.2484000000E+05	M
284	TEMPERATURE/DRY	.2160599976E+03	K
285	INTEGRATED WATE	MISSING	KG/M**2
286	PRESSURE	.2612000000E+04	PA
287	PRESSURE	.3044899902E+04	PA
288	INTEGRATED OZON	MISSING	KG/M**2
289	HEIGHT	.2385000000E+05	M
290	TEMPERATURE/DRY	.2158300018E+03	K
291	INTEGRATED WATE	MISSING	KG/M**2
292	PRESSURE	.3044899902E+04	PA
293	PRESSURE	.3530899902E+04	PA
294	INTEGRATED OZON	MISSING	KG/M**2
295	HEIGHT	.2288000000E+05	M
296	TEMPERATURE/DRY	.2160399933E+03	K
297	INTEGRATED WATE	MISSING	KG/M**2
298	PRESSURE	.3530899902E+04	PA
299	PRESSURE	.4068000000E+04	PA
300	INTEGRATED OZON	.4120100057E-03	KG/M**2
301	HEIGHT	.2195000000E+05	M
302	TEMPERATURE/DRY	.2169100037E+03	K
303	INTEGRATED WATE	.3210000068E-04	KG/M**2
304	PRESSURE	.4068000000E+04	PA
305	PRESSURE	.4651299805E+04	PA
306	INTEGRATED OZON	.3407199983E-03	KG/M**2
307	HEIGHT	.2106000000E+05	M
308	TEMPERATURE/DRY	.2175800018E+03	K
309	INTEGRATED WATE	.2323999979E-04	KG/M**2
310	PRESSURE	.4651299805E+04	PA
311	PRESSURE	.5276100098E+04	PA
312	INTEGRATED OZON	.2968799963E-03	KG/M**2
313	HEIGHT	.2023000000E+05	M
314	TEMPERATURE/DRY	.2182599945E+03	K
315	INTEGRATED WATE	.7021000056E-04	KG/M**2
316	PRESSURE	.5276100098E+04	PA
317	PRESSURE	.5942000000E+04	PA
318	INTEGRATED OZON	.2777499903E-03	KG/M**2
319	HEIGHT	.1944000000E+05	M
320	TEMPERATURE/DRY	.2185800018E+03	K
321	INTEGRATED WATE	.6561999908E-04	KG/M**2
322	PRESSURE	.5942000000E+04	PA
323	PRESSURE	.6652799805E+04	PA
324	INTEGRATED OZON	.2343999950E-03	KG/M**2
325	HEIGHT	.1869000000E+05	M
326	TEMPERATURE/DRY	.2188699951E+03	K
327	INTEGRATED WATE	.2144999962E-04	KG/M**2
328	PRESSURE	.6652799805E+04	PA
329	PRESSURE	.7411600098E+04	PA
330	INTEGRATED OZON	.1977399952E-03	KG/M**2
331	HEIGHT	.1798000000E+05	M
332	TEMPERATURE/DRY	.2191600037E+03	K
333	INTEGRATED WATE	MISSING	KG/M**2
334	PRESSURE	.7411600098E+04	PA
335	PRESSURE	.8217400391E+04	PA
336	INTEGRATED OZON	.2258500026E-03	KG/M**2
337	HEIGHT	.1730000000E+05	M
338	TEMPERATURE/DRY	.2196399994E+03	K
339	INTEGRATED WATE	.1460000058E-03	KG/M**2
340	PRESSURE	.8217400391E+04	PA
341	PRESSURE	.9065599609E+04	PA
342	INTEGRATED OZON	.2129299974E-03	KG/M**2
343	HEIGHT	.1664000000E+05	M
344	TEMPERATURE/DRY	.2201199951E+03	K
345	INTEGRATED WATE	.1297699928E-03	KG/M**2
346	PRESSURE	.9065599609E+04	PA
347	PRESSURE	.9951500000E+04	PA
348	INTEGRATED OZON	.1972600003E-03	KG/M**2
349	HEIGHT	.1602000000E+05	M
350	TEMPERATURE/DRY	.2206399994E+03	K
351	INTEGRATED WATE	.4606999937E-04	KG/M**2
352	PRESSURE	.9951500000E+04	PA
353	PRESSURE	.1087020020E+05	PA
354	INTEGRATED OZON	.1398500026E-03	KG/M**2
355	HEIGHT	.1543000000E+05	M
356	TEMPERATURE/DRY	.2211300049E+03	K
357	INTEGRATED WATE	.1908099948E-03	KG/M**2
358	PRESSURE	.1087020020E+05	PA
359	PRESSURE	.1181670020E+05	PA
360	INTEGRATED OZON	.2706199884E-03	KG/M**2
361	HEIGHT	.1487000000E+05	M
362	TEMPERATURE/DRY	.2216799927E+03	K
363	INTEGRATED WATE	.1894900051E-03	KG/M**2
364	PRESSURE	.1181670020E+05	PA
365	PRESSURE	.1278629980E+05	PA
366	INTEGRATED OZON	.1170699979E-03	KG/M**2

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367 HEIGHT .1434000000E+05 M
368 TEMPERATURE/DRY .2220800018E+03 K
369 INTEGRATED WATE .7511000149E-04 KG/M**2
370 PRESSURE .1278629980E+05 PA
371 PRESSURE .1377440039E+05 PA
372 INTEGRATED OZON .1114800034E-03 KG/M**2
373 HEIGHT .1384000000E+05 M
374 TEMPERATURE/DRY .2224600067E+03 K
375 INTEGRATED WATE .1102099995E-03 KG/M**2
376 PRESSURE .1377440039E+05 PA
377 PRESSURE .1477709961E+05 PA
378 INTEGRATED OZON .9293999756E-04 KG/M**2
379 HEIGHT .1337000000E+05 M
380 TEMPERATURE/DRY .2226999969E+03 K
381 INTEGRATED WATE .1887399994E-03 KG/M**2
382 PRESSURE .1477709961E+05 PA
383 PRESSURE .1579059961E+05 PA
384 INTEGRATED OZON .2645300119E-03 KG/M**2
385 HEIGHT .1292000000E+05 M
386 TEMPERATURE/DRY .2229499969E+03 K
387 INTEGRATED WATE .2267300006E-03 KG/M**2
388 PRESSURE .1579059961E+05 PA
389 PRESSURE .1681190039E+05 PA
390 INTEGRATED OZON .7267000183E-04 KG/M**2
391 HEIGHT .1250000000E+05 M
392 TEMPERATURE/DRY .2230399933E+03 K
393 INTEGRATED WATE MISSING KG/M**2
394 PRESSURE .1681190039E+05 PA
395 PRESSURE .1783800000E+05 PA
396 INTEGRATED OZON .1035800015E-03 KG/M**2
397 HEIGHT .1210000000E+05 M
398 TEMPERATURE/DRY .2230599976E+03 K
399 INTEGRATED WATE .4313699901E-03 KG/M**2
400 PRESSURE .1783800000E+05 PA
401 PRESSURE .1886640039E+05 PA
402 INTEGRATED OZON .5882999903E-04 KG/M**2
403 HEIGHT .1172000000E+05 M
404 TEMPERATURE/DRY .2230099945E+03 K
405 INTEGRATED WATE .2203899930E-03 KG/M**2
406 PRESSURE .1886640039E+05 PA
407 PRESSURE .1989419922E+05 PA
408 INTEGRATED OZON MISSING KG/M**2
409 HEIGHT .1137000000E+05 M
410 TEMPERATURE/DRY .2228800049E+03 K
411 INTEGRATED WATE .3275499912E-03 KG/M**2
412 PRESSURE .1989419922E+05 PA
413 PRESSURE .2091709961E+05 PA
414 INTEGRATED OZON .8006000280E-04 KG/M**2
415 HEIGHT .1103000000E+05 M
416 TEMPERATURE/DRY .2226600037E+03 K
417 INTEGRATED WATE .9190000128E-04 KG/M**2
418 PRESSURE .2091709961E+05 PA
419 PRESSURE .2192940039E+05 PA
420 INTEGRATED OZON .6771000335E-04 KG/M**2
421 HEIGHT .1071000000E+05 M
422 TEMPERATURE/DRY .2223800049E+03 K
423 INTEGRATED WATE .1473799930E-03 KG/M**2
424 PRESSURE .2192940039E+05 PA
425 PRESSURE .2292630078E+05 PA
426 INTEGRATED OZON MISSING KG/M**2
427 HEIGHT .1041000000E+05 M
428 TEMPERATURE/DRY .2220099945E+03 K
429 INTEGRATED WATE MISSING KG/M**2
430 PRESSURE .2292630078E+05 PA
431 PRESSURE .2390500000E+05 PA
432 INTEGRATED OZON .5465999857E-04 KG/M**2
433 HEIGHT .1013000000E+05 M
434 TEMPERATURE/DRY .2215500031E+03 K
435 INTEGRATED WATE .1764999979E-04 KG/M**2
436 PRESSURE .2390500000E+05 PA
437 PRESSURE .2486459961E+05 PA
438 INTEGRATED OZON MISSING KG/M**2
439 HEIGHT .9870000000E+04 M
440 TEMPERATURE/DRY .2210299988E+03 K
441 INTEGRATED WATE MISSING KG/M**2
442 PRESSURE .2486459961E+05 PA
443 PRESSURE .2581900000E+05 PA
444 INTEGRATED OZON MISSING KG/M**2
445 HEIGHT .9620000000E+04 M
446 TEMPERATURE/DRY .2204299927E+03 K
447 INTEGRATED WATE MISSING KG/M**2
448 PRESSURE .2581900000E+05 PA
449 PRESSURE .2629830078E+05 PA
450 INTEGRATED OZON .7990000086E-05 KG/M**2
451 HEIGHT .9380000000E+04 M
452 TEMPERATURE/DRY .2197899933E+03 K
453 INTEGRATED WATE .1031599968E-03 KG/M**2
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455 BACKWARD REFERE .0000000000E+00
456 EXTENDED DELAYE .4260000000E+03 NUMERIC
457 DATA PRESENT IN MISSING NUMERIC
458 DATA PRESENT IN MISSING NUMERIC
459 DATA PRESENT IN .0000000000E+00 NUMERIC
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411

ECMWF Technical Notes

413

ECMWF Technical Notes



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882 DATA PRESENT IN          .0000000000E+00 NUMERIC
883 IDENTIFICATION            .9800000000E+02 CODE TABLE 001031
884 GENERATING APPL           .1000000000E+01 CODE TABLE 001032
885 FIRST ORDER STA           .9000000000E+01 CODE TABLE 008023
886 EXTENDED DELAYE          .2130000000E+03 NUMERIC
887 INTEGRATED OZON           MISSING KG/M**2
888 TEMPERATURE/DRY          .3341999817E+02 K
889 INTEGRATED WATE           MISSING KG/M**2
890 INTEGRATED OZON           MISSING KG/M**2
891 TEMPERATURE/DRY          .33009999832E+02 K
892 INTEGRATED WATE           MISSING KG/M**2
893 INTEGRATED OZON           MISSING KG/M**2
894 TEMPERATURE/DRY          .3256000137E+02 K
895 INTEGRATED WATE           MISSING KG/M**2
896 INTEGRATED OZON           MISSING KG/M**2
897 TEMPERATURE/DRY          .3231000137E+02 K
898 INTEGRATED WATE           MISSING KG/M**2
899 INTEGRATED OZON           MISSING KG/M**2
900 TEMPERATURE/DRY          .3182999992E+02 K
901 INTEGRATED WATE           MISSING KG/M**2
902 INTEGRATED OZON           MISSING KG/M**2
903 TEMPERATURE/DRY          .31389999939E+02 K
904 INTEGRATED WATE           MISSING KG/M**2
905 INTEGRATED OZON           MISSING KG/M**2
906 TEMPERATURE/DRY          .3122999954E+02 K
907 INTEGRATED WATE           MISSING KG/M**2
908 INTEGRATED OZON           MISSING KG/M**2
909 TEMPERATURE/DRY          .30889999939E+02 K
910 INTEGRATED WATE           MISSING KG/M**2
911 INTEGRATED OZON           MISSING KG/M**2
912 TEMPERATURE/DRY          .3057999992E+02 K
913 INTEGRATED WATE           MISSING KG/M**2
914 INTEGRATED OZON           MISSING KG/M**2
915 TEMPERATURE/DRY          .3054000092E+02 K
916 INTEGRATED WATE           MISSING KG/M**2
917 INTEGRATED OZON           MISSING KG/M**2
918 TEMPERATURE/DRY          .3026000023E+02 K
919 INTEGRATED WATE           MISSING KG/M**2
920 INTEGRATED OZON           MISSING KG/M**2
921 TEMPERATURE/DRY          .29969999931E+02 K
922 INTEGRATED WATE           MISSING KG/M**2
923 INTEGRATED OZON           MISSING KG/M**2
924 TEMPERATURE/DRY          .2990999985E+02 K

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925	INTEGRATED WATE	MISSING	KG/M**2
926	INTEGRATED OZON	MISSING	KG/M**2
927	TEMPERATURE/DRY	.2955999947E+02	K
928	INTEGRATED WATE	MISSING	KG/M**2
929	INTEGRATED OZON	MISSING	KG/M**2
930	TEMPERATURE/DRY	.2917000008E+02	K
931	INTEGRATED WATE	MISSING	KG/M**2
932	INTEGRATED OZON	MISSING	KG/M**2
933	TEMPERATURE/DRY	.2896999931E+02	K
934	INTEGRATED WATE	MISSING	KG/M**2
935	INTEGRATED OZON	MISSING	KG/M**2
936	TEMPERATURE/DRY	.2845000076E+02	K
937	INTEGRATED WATE	MISSING	KG/M**2
938	INTEGRATED OZON	MISSING	KG/M**2
939	TEMPERATURE/DRY	.2786000061E+02	K
940	INTEGRATED WATE	MISSING	KG/M**2
941	INTEGRATED OZON	MISSING	KG/M**2
942	TEMPERATURE/DRY	.2720000076E+02	K
943	INTEGRATED WATE	MISSING	KG/M**2
944	INTEGRATED OZON	MISSING	KG/M**2
945	TEMPERATURE/DRY	.2672999954E+02	K
946	INTEGRATED WATE	MISSING	KG/M**2
947	INTEGRATED OZON	MISSING	KG/M**2
948	TEMPERATURE/DRY	.2514999962E+02	K
949	INTEGRATED WATE	MISSING	KG/M**2
950	INTEGRATED OZON	MISSING	KG/M**2
951	TEMPERATURE/DRY	.2327000046E+02	K
952	INTEGRATED WATE	MISSING	KG/M**2
953	INTEGRATED OZON	MISSING	KG/M**2
954	TEMPERATURE/DRY	.2193000031E+02	K
955	INTEGRATED WATE	MISSING	KG/M**2
956	INTEGRATED OZON	MISSING	KG/M**2
957	TEMPERATURE/DRY	.2043000031E+02	K
958	INTEGRATED WATE	MISSING	KG/M**2
959	INTEGRATED OZON	MISSING	KG/M**2
960	TEMPERATURE/DRY	.1860000038E+02	K
961	INTEGRATED WATE	MISSING	KG/M**2
962	INTEGRATED OZON	MISSING	KG/M**2
963	TEMPERATURE/DRY	.1657999992E+02	K
964	INTEGRATED WATE	MISSING	KG/M**2
965	INTEGRATED OZON	MISSING	KG/M**2
966	TEMPERATURE/DRY	.1478999996E+02	K
967	INTEGRATED WATE	MISSING	KG/M**2
968	INTEGRATED OZON	MISSING	KG/M**2
969	TEMPERATURE/DRY	.1330000019E+02	K
970	INTEGRATED WATE	MISSING	KG/M**2
971	INTEGRATED OZON	MISSING	KG/M**2
972	TEMPERATURE/DRY	.1313000011E+02	K
973	INTEGRATED WATE	MISSING	KG/M**2
974	INTEGRATED OZON	MISSING	KG/M**2
975	TEMPERATURE/DRY	.1293999958E+02	K
976	INTEGRATED WATE	MISSING	KG/M**2
977	INTEGRATED OZON	MISSING	KG/M**2
978	TEMPERATURE/DRY	.1277000046E+02	K
979	INTEGRATED WATE	MISSING	KG/M**2
980	INTEGRATED OZON	MISSING	KG/M**2
981	TEMPERATURE/DRY	.1272000027E+02	K
982	INTEGRATED WATE	MISSING	KG/M**2
983	INTEGRATED OZON	MISSING	KG/M**2
984	TEMPERATURE/DRY	.1260999996E+02	K
985	INTEGRATED WATE	MISSING	KG/M**2
986	INTEGRATED OZON	MISSING	KG/M**2
987	TEMPERATURE/DRY	.1231999969E+02	K
988	INTEGRATED WATE	MISSING	KG/M**2
989	INTEGRATED OZON	MISSING	KG/M**2
990	TEMPERATURE/DRY	.1185000038E+02	K
991	INTEGRATED WATE	MISSING	KG/M**2
992	INTEGRATED OZON	MISSING	KG/M**2
993	TEMPERATURE/DRY	.1119999981E+02	K
994	INTEGRATED WATE	MISSING	KG/M**2
995	INTEGRATED OZON	MISSING	KG/M**2
996	TEMPERATURE/DRY	.1027999973E+02	K
997	INTEGRATED WATE	MISSING	KG/M**2
998	INTEGRATED OZON	MISSING	KG/M**2
999	TEMPERATURE/DRY	.9340000153E+01	K
1000	INTEGRATED WATE	MISSING	KG/M**2
1001	INTEGRATED OZON	MISSING	KG/M**2
1002	TEMPERATURE/DRY	.8510000229E+01	K
1003	INTEGRATED WATE	MISSING	KG/M**2
1004	INTEGRATED OZON	MISSING	KG/M**2
1005	TEMPERATURE/DRY	.7789999962E+01	K
1006	INTEGRATED WATE	MISSING	KG/M**2
1007	INTEGRATED OZON	MISSING	KG/M**2
1008	TEMPERATURE/DRY	.7130000114E+01	K
1009	INTEGRATED WATE	MISSING	KG/M**2
1010	INTEGRATED OZON	MISSING	KG/M**2
1011	TEMPERATURE/DRY	.6489999771E+01	K
1012	INTEGRATED WATE	MISSING	KG/M**2
1013	INTEGRATED OZON	MISSING	KG/M**2
1014	TEMPERATURE/DRY	.5840000153E+01	K
1015	INTEGRATED WATE	MISSING	KG/M**2
1016	INTEGRATED OZON	MISSING	KG/M**2
1017	TEMPERATURE/DRY	.5400000095E+01	K

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1018 INTEGRATED WATE          MISSING KG/M**2
1019 INTEGRATED OZON          MISSING KG/M**2
1020 TEMPERATURE/DRY          .5400000095E+01 K
1021 INTEGRATED WATE          MISSING KG/M**2
1022 INTEGRATED OZON          MISSING KG/M**2
1023 TEMPERATURE/DRY          .5400000095E+01 K
1024 INTEGRATED WATE          MISSING KG/M**2
1025 INTEGRATED OZON          .3180179978E-02 KG/M**2
1026 TEMPERATURE/DRY          .5420000076E+01 K
1027 INTEGRATED WATE          MISSING KG/M**2
1028 INTEGRATED OZON          .1553919981E-02 KG/M**2
1029 TEMPERATURE/DRY          .5440000057E+01 K
1030 INTEGRATED WATE          MISSING KG/M**2
1031 INTEGRATED OZON          .1978039974E-02 KG/M**2
1032 TEMPERATURE/DRY          .5460000038E+01 K
1033 INTEGRATED WATE          MISSING KG/M**2
1034 INTEGRATED OZON          .1591310021E-02 KG/M**2
1035 TEMPERATURE/DRY          .5460000038E+01 K
1036 INTEGRATED WATE          MISSING KG/M**2
1037 INTEGRATED OZON          .1524789957E-02 KG/M**2
1038 TEMPERATURE/DRY          .5469999790E+01 K
1039 INTEGRATED WATE          MISSING KG/M**2
1040 INTEGRATED OZON          .1460039988E-02 KG/M**2
1041 TEMPERATURE/DRY          .5480000019E+01 K
1042 INTEGRATED WATE          MISSING KG/M**2
1043 INTEGRATED OZON          .2266410040E-02 KG/M**2
1044 TEMPERATURE/DRY          .5489999771E+01 K
1045 INTEGRATED WATE          .7480675727E-01 KG/M**2
1046 INTEGRATED OZON          .2337200101E-02 KG/M**2
1047 TEMPERATURE/DRY          .5500000000E+01 K
1048 INTEGRATED WATE          .7347303629E-01 KG/M**2
1049 INTEGRATED OZON          .2466249978E-02 KG/M**2
1050 TEMPERATURE/DRY          .5519999981E+01 K
1051 INTEGRATED WATE          MISSING KG/M**2
1052 INTEGRATED OZON          .1843429985E-02 KG/M**2
1053 TEMPERATURE/DRY          .5530000210E+01 K
1054 INTEGRATED WATE          .4974786937E-01 KG/M**2
1055 INTEGRATED OZON          .4175830167E-02 KG/M**2
1056 TEMPERATURE/DRY          .5539999962E+01 K
1057 INTEGRATED WATE          .9289442003E-01 KG/M**2
1058 INTEGRATED OZON          .3276010044E-02 KG/M**2
1059 TEMPERATURE/DRY          .5550000191E+01 K
1060 INTEGRATED WATE          MISSING KG/M**2
1061 INTEGRATED OZON          .4932620097E-02 KG/M**2
1062 TEMPERATURE/DRY          .5559999943E+01 K
1063 INTEGRATED WATE          MISSING KG/M**2
1064 INTEGRATED OZON          .2227110090E-02 KG/M**2
1065 TEMPERATURE/DRY          .5570000172E+01 K
1066 INTEGRATED WATE          .4087939113E-01 KG/M**2
1067 INTEGRATED OZON          .1044712961E-01 KG/M**2
1068 TEMPERATURE/DRY          MISSING K
1069 INTEGRATED WATE          .1673825383E+00 KG/M**2
1070 INTEGRATED OZON          .8825589903E-02 KG/M**2
1071 TEMPERATURE/DRY          MISSING K
1072 INTEGRATED WATE          MISSING KG/M**2
1073 INTEGRATED OZON          .5331899971E-02 KG/M**2
1074 TEMPERATURE/DRY          MISSING K
1075 INTEGRATED WATE          .8292321116E-01 KG/M**2
1076 INTEGRATED OZON          .6067709997E-02 KG/M**2
1077 TEMPERATURE/DRY          MISSING K
1078 INTEGRATED WATE          .9964945912E-01 KG/M**2
1079 INTEGRATED OZON          MISSING KG/M**2
1080 TEMPERATURE/DRY          MISSING K
1081 INTEGRATED WATE          .2204777598E+00 KG/M**2
1082 INTEGRATED OZON          .7704270072E-02 KG/M**2
1083 TEMPERATURE/DRY          MISSING K
1084 INTEGRATED WATE          .1009002700E+00 KG/M**2
1085 INTEGRATED OZON          .5826780107E-02 KG/M**2
1086 TEMPERATURE/DRY          MISSING K
1087 INTEGRATED WATE          .7991050184E-01 KG/M**2
1088 INTEGRATED OZON          MISSING KG/M**2
1089 TEMPERATURE/DRY          MISSING K
1090 INTEGRATED WATE          MISSING KG/M**2
1091 INTEGRATED OZON          .4233390093E-02 KG/M**2
1092 TEMPERATURE/DRY          MISSING K
1093 INTEGRATED WATE          MISSING KG/M**2
1094 INTEGRATED OZON          MISSING KG/M**2
1095 TEMPERATURE/DRY          MISSING K
1096 INTEGRATED WATE          MISSING KG/M**2
1097 INTEGRATED OZON          MISSING KG/M**2
1098 TEMPERATURE/DRY          MISSING K
1099 INTEGRATED WATE          MISSING KG/M**2

```

### 3.58 Envisat MIPAS data

RDB type 12, subtype 210

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
                                25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 714
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 3
    BUFR MESSAGE SUBTYPE             206
    VERSION NUMBER OF LOCAL TABLE    1
    YEAR                             3
    MONTH                            12
    DAY                              30
    HOUR                             5
    MINUTE                           8
    VERSION NUMBER OF MASTER TABLE   11
    BUFR MASTER TABLE                0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   2
    RDB DATA SUBTYPE                206
    YEAR                             2003
    MONTH                            12
    DAY                              30
    HOUR                             5
    MINUTE                           8
    SECOND                           47
    LATITUDE 1                       70.55
    LONGITUDE 1                      -105.18
    LATITUDE 2                       70.55
    LONGITUDE 2                      -105.18
    NUMBER OF OBSERVATIONS            1
    IDENTIFIER                        60
    TOTAL BUFR MESSAGE LENGTH        714
    DAY (RDB INSERTION)              30
    HOUR (RDB INSERTION)              9
    MINUTE (RDB INSERTION)           42
    SECOND (RDB INSERTION)           31
    DAY (MDB ARRIVAL)                30
    HOUR (MDB ARRIVAL)                9
    MINUTE (MDB ARRIVAL)             39
    SECOND (MDB ARRIVAL)             55
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    CORRECTION NUMBER                0
    PART OF MESSAGE                  0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      32
    RESERVED                          0
    NUMBER OF DATA SUBSETS           1
    FLAG (DATA TYPE/DATA COMPRESSION) 192
```

## DATA DESCRIPTORS (UNEXPANDED)

```
1 310030
2 224000
3 236000
4 101000
5 031002
6 031031
7 001031
8 001032
9 008023
10 101000
11 031002
12 224255
```

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
4 002172 PRODUCT TYPE FOR RETRIEVED ATMOSPHERIC GASES
5 004001 YEAR
6 004002 MONTH
7 004003 DAY
8 004004 HOUR
9 004005 MINUTE
10 004006 SECOND
11 005001 LATITUDE (HIGH ACCURACY)
12 006001 LONGITUDE (HIGH ACCURACY)
13 027001 LATITUDE(HIGH ACCURACY)
14 028001 LONGITUDE(HIGH ACCURACY)
15 027001 LATITUDE(HIGH ACCURACY)
16 028001 LONGITUDE(HIGH ACCURACY)
17 027001 LATITUDE(HIGH ACCURACY)
18 028001 LONGITUDE(HIGH ACCURACY)
19 027001 LATITUDE(HIGH ACCURACY)
20 028001 LONGITUDE(HIGH ACCURACY)
21 007022 SOLAR ELEVATION
22 005043 FIELD OF VIEW NUMBER
23 020010 CLOUD COVER (TOTAL)
24 020016 PRESSURE AT TOP OF CLOUD
25 033003 QUALITY INFORMATION
26 010040 NUMBER OF RETRIEVED LAYERS
27 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
28 007004 PRESSURE
29 007004 PRESSURE
30 015020 INTEGRATED OZONE DENSITY
31 010002 HEIGHT
32 012101 TEMPERATURE/DRY BULB TEMPERATURE
33 013098 INTEGRATED WATER VAPOUR DENSITY
34 007004 PRESSURE
35 007004 PRESSURE
36 015020 INTEGRATED OZONE DENSITY
37 010002 HEIGHT
38 012101 TEMPERATURE/DRY BULB TEMPERATURE
39 013098 INTEGRATED WATER VAPOUR DENSITY
40 007004 PRESSURE
41 007004 PRESSURE
42 015020 INTEGRATED OZONE DENSITY
43 010002 HEIGHT
44 012101 TEMPERATURE/DRY BULB TEMPERATURE
45 013098 INTEGRATED WATER VAPOUR DENSITY
46 007004 PRESSURE
47 007004 PRESSURE
48 015020 INTEGRATED OZONE DENSITY
49 010002 HEIGHT
50 012101 TEMPERATURE/DRY BULB TEMPERATURE
51 013098 INTEGRATED WATER VAPOUR DENSITY
52 007004 PRESSURE
53 007004 PRESSURE
54 015020 INTEGRATED OZONE DENSITY
55 010002 HEIGHT
56 012101 TEMPERATURE/DRY BULB TEMPERATURE
57 013098 INTEGRATED WATER VAPOUR DENSITY
58 007004 PRESSURE
59 007004 PRESSURE
60 015020 INTEGRATED OZONE DENSITY
61 010002 HEIGHT
62 012101 TEMPERATURE/DRY BULB TEMPERATURE
63 013098 INTEGRATED WATER VAPOUR DENSITY
64 007004 PRESSURE
65 007004 PRESSURE
66 015020 INTEGRATED OZONE DENSITY
67 010002 HEIGHT
68 012101 TEMPERATURE/DRY BULB TEMPERATURE
69 013098 INTEGRATED WATER VAPOUR DENSITY
70 007004 PRESSURE
71 007004 PRESSURE
72 015020 INTEGRATED OZONE DENSITY
73 010002 HEIGHT
74 012101 TEMPERATURE/DRY BULB TEMPERATURE
75 013098 INTEGRATED WATER VAPOUR DENSITY
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76	007004	PRESSURE
77	007004	PRESSURE
78	015020	INTEGRATED OZONE DENSITY
79	010002	HEIGHT
80	012101	TEMPERATURE/DRY BULB TEMPERATURE
81	013098	INTEGRATED WATER VAPOUR DENSITY
82	007004	PRESSURE
83	007004	PRESSURE
84	015020	INTEGRATED OZONE DENSITY
85	010002	HEIGHT
86	012101	TEMPERATURE/DRY BULB TEMPERATURE
87	013098	INTEGRATED WATER VAPOUR DENSITY
88	007004	PRESSURE
89	007004	PRESSURE
90	015020	INTEGRATED OZONE DENSITY
91	010002	HEIGHT
92	012101	TEMPERATURE/DRY BULB TEMPERATURE
93	013098	INTEGRATED WATER VAPOUR DENSITY
94	007004	PRESSURE
95	007004	PRESSURE
96	015020	INTEGRATED OZONE DENSITY
97	010002	HEIGHT
98	012101	TEMPERATURE/DRY BULB TEMPERATURE
99	013098	INTEGRATED WATER VAPOUR DENSITY
100	007004	PRESSURE
101	007004	PRESSURE
102	015020	INTEGRATED OZONE DENSITY
103	010002	HEIGHT
104	012101	TEMPERATURE/DRY BULB TEMPERATURE
105	013098	INTEGRATED WATER VAPOUR DENSITY
106	007004	PRESSURE
107	007004	PRESSURE
108	015020	INTEGRATED OZONE DENSITY
109	010002	HEIGHT
110	012101	TEMPERATURE/DRY BULB TEMPERATURE
111	013098	INTEGRATED WATER VAPOUR DENSITY
112	224000	FIRST ORDER STATISTICS FOLLOW
113	236000	BACKWARD REFERENCE BIT MAP
114	031002	EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
115	031031	DATA PRESENT INDICATOR
116	031031	DATA PRESENT INDICATOR
117	031031	DATA PRESENT INDICATOR
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168	031031	DATA PRESENT INDICATOR

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169 031031 DATA PRESENT INDICATOR
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196 031031 DATA PRESENT INDICATOR
197 031031 DATA PRESENT INDICATOR
198 031031 DATA PRESENT INDICATOR
199 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
200 001032 GENERATING APPLICATION
201 008023 FIRST ORDER STATISTICS
202 031002 EXTENDED DELAYED DESCRIPTOR REPLICATION FACTOR
203 224255 INTEGRATED OZONE DENSITY
204 224255 TEMPERATURE/DRY BULB TEMPERATURE
205 224255 INTEGRATED WATER VAPOUR DENSITY
206 224255 INTEGRATED OZONE DENSITY
207 224255 TEMPERATURE/DRY BULB TEMPERATURE
208 224255 INTEGRATED WATER VAPOUR DENSITY
209 224255 INTEGRATED OZONE DENSITY
210 224255 TEMPERATURE/DRY BULB TEMPERATURE
211 224255 INTEGRATED WATER VAPOUR DENSITY
212 224255 INTEGRATED OZONE DENSITY
213 224255 TEMPERATURE/DRY BULB TEMPERATURE
214 224255 INTEGRATED WATER VAPOUR DENSITY
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216 224255 TEMPERATURE/DRY BULB TEMPERATURE
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225 224255 TEMPERATURE/DRY BULB TEMPERATURE
226 224255 INTEGRATED WATER VAPOUR DENSITY
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228 224255 TEMPERATURE/DRY BULB TEMPERATURE
229 224255 INTEGRATED WATER VAPOUR DENSITY
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231 224255 TEMPERATURE/DRY BULB TEMPERATURE
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240 224255 TEMPERATURE/DRY BULB TEMPERATURE
241 224255 INTEGRATED WATER VAPOUR DENSITY
242 224255 INTEGRATED OZONE DENSITY
243 224255 TEMPERATURE/DRY BULB TEMPERATURE
244 224255 INTEGRATED WATER VAPOUR DENSITY

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STARTING SUBSET TO BE PRINTED : 1
ENDING SUBSET TO BE PRINTED : 1

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```

1 SATELLITE IDENT      .6000000000E+02 CODE TABLE 001007
2 SATELLITE INSTR      .1610000000E+03 CODE TABLE 002019
3 IDENTIFICATION        .2540000000E+03 CODE TABLE 001033
4 PRODUCT TYPE FO      .2000000000E+01 CODE TABLE 002172
5 YEAR                  .2003000000E+04 YEAR
6 MONTH                 .1200000000E+02 MONTH
7 DAY                   .3000000000E+02 DAY
8 HOUR                  .5000000000E+01 HOUR
9 MINUTE                .8000000000E+01 MINUTE
10 SECOND               .4700000000E+02 SECOND
11 LATITUDE (HIGH      .7054873657E+02 DEGREE
12 LONGITUDE (HIGH     -.1051750107E+03 DEGREE
13 LATITUDE (HIGH A    .6912625885E+02 DEGREE

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14	LONGITUDE(HIGH	-.1053648834E+03	DEGREE
15	LATITUDE(HIGH A	.6912625885E+02	DEGREE
16	LONGITUDE(HIGH	-.1049437027E+03	DEGREE
17	LATITUDE(HIGH A	.7198175049E+02	DEGREE
18	LONGITUDE(HIGH	-.1053648834E+03	DEGREE
19	LATITUDE(HIGH A	.7198175049E+02	DEGREE
20	LONGITUDE(HIGH	-.1049437027E+03	DEGREE
21	SOLAR ELEVATION	MISSING	DEGREE
22	FIELD OF VIEW N	MISSING	NUMERIC
23	CLOUD COVER (TO	MISSING	%
24	PRESSURE AT TOP	MISSING	PA
25	QUALITY INFORMA	MISSING	CODE TABLE 033003
26	NUMBER OF RETRI	.1400000000E+02	NUMERIC
27	DELAYED DESCRIP	.1400000000E+02	NUMERIC
28	PRESSURE	.4199999809E+01	PA
29	PRESSURE	.1350000000E+02	PA
30	INTEGRATED OZON	MISSING	KG/M**2
31	HEIGHT	.6831000000E+05	M
32	TEMPERATURE/DRY	.2340299988E+03	K
33	INTEGRATED WATE	MISSING	KG/M**2
34	PRESSURE	.1350000000E+02	PA
35	PRESSURE	.4620000076E+02	PA
36	INTEGRATED OZON	.7590000223E-05	KG/M**2
37	HEIGHT	.6021000000E+05	M
38	TEMPERATURE/DRY	.2284700012E+03	K
39	INTEGRATED WATE	.9030000001E-05	KG/M**2
40	PRESSURE	.4620000076E+02	PA
41	PRESSURE	.1010000000E+03	PA
42	INTEGRATED OZON	.2393000068E-04	KG/M**2
43	HEIGHT	.5212000000E+05	M
44	TEMPERATURE/DRY	.2133500061E+03	K
45	INTEGRATED WATE	.1625000004E-04	KG/M**2
46	PRESSURE	.1010000000E+03	PA
47	PRESSURE	.2116000061E+03	PA
48	INTEGRATED OZON	.6621999637E-04	KG/M**2
49	HEIGHT	.4702000000E+05	M
50	TEMPERATURE/DRY	.2254199982E+03	K
51	INTEGRATED WATE	.4688999979E-04	KG/M**2
52	PRESSURE	.2116000061E+03	PA
53	PRESSURE	.3292000122E+03	PA
54	INTEGRATED OZON	.9162999777E-04	KG/M**2
55	HEIGHT	.4202000000E+05	M
56	TEMPERATURE/DRY	.2310099945E+03	K
57	INTEGRATED WATE	.4750000153E-04	KG/M**2
58	PRESSURE	.3292000122E+03	PA
59	PRESSURE	.5112000122E+03	PA
60	INTEGRATED OZON	.1842899946E-03	KG/M**2
61	HEIGHT	.3899000000E+05	M
62	TEMPERATURE/DRY	.2321300049E+03	K
63	INTEGRATED WATE	.6962999760E-04	KG/M**2
64	PRESSURE	.5112000122E+03	PA
65	PRESSURE	.7977000122E+03	PA
66	INTEGRATED OZON	.3173100122E-03	KG/M**2
67	HEIGHT	.3596000000E+05	M
68	TEMPERATURE/DRY	.2350899963E+03	K
69	INTEGRATED WATE	.1090200021E-03	KG/M**2
70	PRESSURE	.7977000122E+03	PA
71	PRESSURE	.1224300049E+04	PA
72	INTEGRATED OZON	.4066799884E-03	KG/M**2
73	HEIGHT	.3289000000E+05	M
74	TEMPERATURE/DRY	.2318200073E+03	K
75	INTEGRATED WATE	.1574700000E-03	KG/M**2
76	PRESSURE	.1224300049E+04	PA
77	PRESSURE	.1915400024E+04	PA
78	INTEGRATED OZON	.6024300237E-03	KG/M**2
79	HEIGHT	.2999000000E+05	M
80	TEMPERATURE/DRY	.2264799957E+03	K
81	INTEGRATED WATE	.2336199977E-03	KG/M**2
82	PRESSURE	.1915400024E+04	PA
83	PRESSURE	.3063699951E+04	PA
84	INTEGRATED OZON	.1051279949E-02	KG/M**2
85	HEIGHT	.2702000000E+05	M
86	TEMPERATURE/DRY	.2240099945E+03	K
87	INTEGRATED WATE	.3638800117E-03	KG/M**2
88	PRESSURE	.3063699951E+04	PA
89	PRESSURE	.4633399902E+04	PA
90	INTEGRATED OZON	.1290829969E-02	KG/M**2
91	HEIGHT	.2395000000E+05	M
92	TEMPERATURE/DRY	.2207200012E+03	K
93	INTEGRATED WATE	.4690799979E-03	KG/M**2
94	PRESSURE	.4633399902E+04	PA
95	PRESSURE	.7078700195E+04	PA
96	INTEGRATED OZON	.1544810017E-02	KG/M**2
97	HEIGHT	.2125000000E+05	M
98	TEMPERATURE/DRY	.2228000031E+03	K
99	INTEGRATED WATE	.6983099738E-03	KG/M**2
100	PRESSURE	.7078700195E+04	PA
101	PRESSURE	.1160940039E+05	PA
102	INTEGRATED OZON	.1474790042E-02	KG/M**2
103	HEIGHT	.1847000000E+05	M
104	TEMPERATURE/DRY	.2228200073E+03	K
105	INTEGRATED WATE	.1418650034E-02	KG/M**2
106	PRESSURE	.1160940039E+05	PA



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107 PRESSURE .1837990039E+05 PA
108 INTEGRATED OZON .9062999743E-03 KG/M**2
109 HEIGHT .1521000000E+05 M
110 TEMPERATURE/DRY .2262100067E+03 K
111 INTEGRATED WATE .1764419954E-02 KG/M**2
112 FIRST ORDER STA .0000000000E+00
113 BACKWARD REFERE .0000000000E+00
114 EXTENDED DELAYE .8400000000E+02 NUMERIC
115 DATA PRESENT IN MISSING NUMERIC
116 DATA PRESENT IN MISSING NUMERIC
117 DATA PRESENT IN .0000000000E+00 NUMERIC
118 DATA PRESENT IN MISSING NUMERIC
119 DATA PRESENT IN .0000000000E+00 NUMERIC
120 DATA PRESENT IN .0000000000E+00 NUMERIC
121 DATA PRESENT IN MISSING NUMERIC
122 DATA PRESENT IN MISSING NUMERIC
123 DATA PRESENT IN .0000000000E+00 NUMERIC
124 DATA PRESENT IN MISSING NUMERIC
125 DATA PRESENT IN .0000000000E+00 NUMERIC
126 DATA PRESENT IN .0000000000E+00 NUMERIC
127 DATA PRESENT IN MISSING NUMERIC
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129 DATA PRESENT IN .0000000000E+00 NUMERIC
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131 DATA PRESENT IN .0000000000E+00 NUMERIC
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182 DATA PRESENT IN MISSING NUMERIC
183 DATA PRESENT IN .0000000000E+00 NUMERIC
184 DATA PRESENT IN MISSING NUMERIC
185 DATA PRESENT IN .0000000000E+00 NUMERIC
186 DATA PRESENT IN .0000000000E+00 NUMERIC
187 DATA PRESENT IN MISSING NUMERIC
188 DATA PRESENT IN MISSING NUMERIC
189 DATA PRESENT IN .0000000000E+00 NUMERIC
190 DATA PRESENT IN MISSING NUMERIC
191 DATA PRESENT IN .0000000000E+00 NUMERIC
192 DATA PRESENT IN .0000000000E+00 NUMERIC
193 DATA PRESENT IN MISSING NUMERIC
194 DATA PRESENT IN MISSING NUMERIC
195 DATA PRESENT IN .0000000000E+00 NUMERIC
196 DATA PRESENT IN MISSING NUMERIC
197 DATA PRESENT IN .0000000000E+00 NUMERIC
198 DATA PRESENT IN .0000000000E+00 NUMERIC
199 IDENTIFICATION .2100000000E+03 CODE TABLE 001031

```

200	GENERATING APPL	.1000000000E+01	CODE TABLE 001032
201	FIRST ORDER STA	.9000000000E+01	CODE TABLE 008023
202	EXTENDED DELAYE	.4200000000E+02	NUMERIC
203	INTEGRATED OZON	MISSING	KG/M**2
204	TEMPERATURE/DRY	.1429999948E+01	K
205	INTEGRATED WATE	MISSING	KG/M**2
206	INTEGRATED OZON	.1300000037E-06	KG/M**2
207	TEMPERATURE/DRY	.1809999943E+01	K
208	INTEGRATED WATE	.6999999869E-06	KG/M**2
209	INTEGRATED OZON	.6299999882E-06	KG/M**2
210	TEMPERATURE/DRY	.1840000033E+01	K
211	INTEGRATED WATE	.1699999984E-05	KG/M**2
212	INTEGRATED OZON	.1389999966E-05	KG/M**2
213	TEMPERATURE/DRY	.1720000029E+01	K
214	INTEGRATED WATE	.2640000048E-05	KG/M**2
215	INTEGRATED OZON	.2770000037E-05	KG/M**2
216	TEMPERATURE/DRY	.1629999995E+01	K
217	INTEGRATED WATE	.3110000080E-05	KG/M**2
218	INTEGRATED OZON	.3639999932E-05	KG/M**2
219	TEMPERATURE/DRY	.1799999952E+01	K
220	INTEGRATED WATE	.3500000048E-05	KG/M**2
221	INTEGRATED OZON	.5330000022E-05	KG/M**2
222	TEMPERATURE/DRY	.1450000048E+01	K
223	INTEGRATED WATE	.3900000138E-05	KG/M**2
224	INTEGRATED OZON	.7369999821E-05	KG/M**2
225	TEMPERATURE/DRY	.9200000167E+00	K
226	INTEGRATED WATE	.4500000159E-05	KG/M**2
227	INTEGRATED OZON	.1017999966E-04	KG/M**2
228	TEMPERATURE/DRY	.7200000286E+00	K
229	INTEGRATED WATE	.5259999853E-05	KG/M**2
230	INTEGRATED OZON	.1412999973E-04	KG/M**2
231	TEMPERATURE/DRY	.5899999738E+00	K
232	INTEGRATED WATE	.9379999938E-05	KG/M**2
233	INTEGRATED OZON	.1768999937E-04	KG/M**2
234	TEMPERATURE/DRY	.5000000000E+00	K
235	INTEGRATED WATE	.1723999958E-04	KG/M**2
236	INTEGRATED OZON	.2092999966E-04	KG/M**2
237	TEMPERATURE/DRY	.4900000095E+00	K
238	INTEGRATED WATE	.1954000072E-04	KG/M**2
239	INTEGRATED OZON	.2644000051E-04	KG/M**2
240	TEMPERATURE/DRY	.4199999869E+00	K
241	INTEGRATED WATE	.2814000072E-04	KG/M**2
242	INTEGRATED OZON	.3176999962E-04	KG/M**2
243	TEMPERATURE/DRY	.4799999893E+00	K
244	INTEGRATED WATE	.5303999933E-04	KG/M**2

## 3.59 Envisat SCIAMACHY data

RDB type 12, subtype 210

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
    25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 4264
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                 3
    BUFR MESSAGE SUBTYPE              206
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                              3
    MONTH                             12
    DAY                               27
    HOUR                              5
    MINUTE                            7
    VERSION NUMBER OF MASTER TABLE  11
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   2
    RDB DATA SUBTYPE                 206
    YEAR                             2003
    MONTH                             12
    DAY                               27
    HOUR                              5
    MINUTE                            7
    SECOND                            57
    LATITUDE 1                       53.49
    LONGITUDE 1                      79.48
    LATITUDE 2                       66.14
    LONGITUDE 2                      100.86
    NUMBER OF OBSERVATIONS            128
    IDENTIFIER                        60
    TOTAL BUFR MESSAGE LENGTH        4264
    DAY (RDB INSERTION)              27
    HOUR (RDB INSERTION)              8
    MINUTE (RDB INSERTION)            42
    SECOND (RDB INSERTION)            46
    DAY (MDB ARRIVAL)                 27
    HOUR (MDB ARRIVAL)                8
    MINUTE (MDB ARRIVAL)              39
    SECOND (MDB ARRIVAL)              46
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                 0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF            70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      32
    RESERVED                          0
    NUMBER OF DATA SUBSETS           128
    FLAG (DATA TYPE/DATA COMPRESSION) 192

```

## DATA DESCRIPTORS (UNEXPANDED)

```
1 310020
2 224000
3 236000
4 101000
5 031001
6 031031
7 001031
8 001032
9 008023
10 101000
11 031001
12 224255
```

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001033 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
4 002172 PRODUCT TYPE FOR RETRIEVED ATMOSPHERIC GASES
5 004001 YEAR
6 004002 MONTH
7 004003 DAY
8 004004 HOUR
9 004005 MINUTE
10 004006 SECOND
11 005001 LATITUDE (HIGH ACCURACY)
12 006001 LONGITUDE (HIGH ACCURACY)
13 027001 LATITUDE(HIGH ACCURACY)
14 028001 LONGITUDE(HIGH ACCURACY)
15 027001 LATITUDE(HIGH ACCURACY)
16 028001 LONGITUDE(HIGH ACCURACY)
17 027001 LATITUDE(HIGH ACCURACY)
18 028001 LONGITUDE(HIGH ACCURACY)
19 027001 LATITUDE(HIGH ACCURACY)
20 028001 LONGITUDE(HIGH ACCURACY)
21 007022 SOLAR ELEVATION
22 005043 FIELD OF VIEW NUMBER
23 020010 CLOUD COVER (TOTAL)
24 020016 PRESSURE AT TOP OF CLOUD
25 033003 QUALITY INFORMATION
26 010040 NUMBER OF RETRIEVED LAYERS
27 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
28 007004 PRESSURE
29 007004 PRESSURE
30 015020 INTEGRATED OZONE DENSITY
31 010002 HEIGHT
32 224000 FIRST ORDER STATISTICS FOLLOW
33 236000 BACKWARD REFERENCE BIT MAP
34 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
35 031031 DATA PRESENT INDICATOR
36 031031 DATA PRESENT INDICATOR
37 031031 DATA PRESENT INDICATOR
38 031031 DATA PRESENT INDICATOR
39 001031 IDENTIFICATION OF ORIGINATING/GENERATING CENTRE
40 001032 GENERATING APPLICATION
41 008023 FIRST ORDER STATISTICS
42 031001 DELAYED DESCRIPTOR REPLICATION FACTOR
43 224255 INTEGRATED OZONE DENSITY
```

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

```
1 SATELLITE IDENT .6000000000E+02 CODE TABLE 001007
2 SATELLITE INSTR .1750000000E+03 CODE TABLE 002019
3 IDENTIFICATION .2540000000E+03 CODE TABLE 001033
4 PRODUCT TYPE FO .1000000000E+01 CODE TABLE 002172
5 YEAR .2003000000E+04 YEAR
6 MONTH .1200000000E+02 MONTH
7 DAY .2700000000E+02 DAY
8 HOUR .5000000000E+01 HOUR
9 MINUTE .7000000000E+01 MINUTE
10 SECOND .5700000000E+02 SECOND
11 LATITUDE (HIGH .6352389145E+02 DEGREE
12 LONGITUDE (HIGH .1008612213E+03 DEGREE
13 LATITUDE(HIGH A .6348162842E+02 DEGREE
14 LONGITUDE(HIGH .1016569901E+03 DEGREE
15 LATITUDE(HIGH A .6324956894E+02 DEGREE
16 LONGITUDE(HIGH .1013484726E+03 DEGREE
17 LATITUDE(HIGH A .6379455185E+02 DEGREE
18 LONGITUDE(HIGH .1003639832E+03 DEGREE
19 LATITUDE(HIGH A .6356980896E+02 DEGREE
20 LONGITUDE(HIGH .1000754471E+03 DEGREE
21 SOLAR ELEVATION MISSING DEGREE
22 FIELD OF VIEW N MISSING NUMERIC
23 CLOUD COVER (TO MISSING %
24 PRESSURE AT TOP MISSING PA
25 QUALITY INFORMA MISSING CODE TABLE 033003
26 NUMBER OF RETRI .1000000000E+01 NUMERIC
27 DELAYED DESCRIP .1000000000E+01 NUMERIC
28 PRESSURE .1000000000E+01 PA
```

```
29 PRESSURE .1013250000E+06 PA
30 INTEGRATED OZON .6650079973E-02 KG/M**2
31 HEIGHT MISSING M
32 FIRST ORDER STA .0000000000E+00
33 BACKWARD REFERE .0000000000E+00
34 DELAYED DESCRIP .4000000000E+01 NUMERIC
35 DATA PRESENT IN MISSING NUMERIC
36 DATA PRESENT IN MISSING NUMERIC
37 DATA PRESENT IN .0000000000E+00 NUMERIC
38 DATA PRESENT IN MISSING NUMERIC
39 IDENTIFICATION .2100000000E+03 CODE TABLE 001031
40 GENERATING APPL .1000000000E+01 CODE TABLE 001032
41 FIRST ORDER STA .9000000000E+01 CODE TABLE 008023
42 DELAYED DESCRIP .1000000000E+01 NUMERIC
43 INTEGRATED OZON .7991999883E-04 KG/M**2
```

## 3.60 Envisat RA-2 data

RDB type 12, subtype 213

```

                                ECMWF

    BUFR DECODING SOFTWARE VERSION - 6.1
    25 AUG 2000.

Your path for bufr tables is :
/localhome/emos_pp/tables/bufr/000220/
BUFR TABLES TO BE LOADED B0000981101,D0000981101
1
    BUFR SECTION 0

    LENGTH OF SECTION 0 (BYTES)      8
    TOTAL LENGTH OF BUFR MESSAGE (BYTES) 7916
    BUFR EDITION NUMBER              3
1
    BUFR SECTION 1

    LENGTH OF SECTION 1 (BYTES)      18
    BUFR EDITION NUMBER              3
    ORIGINATING SUB-CENTRE           0
    ORIGINATING CENTRE               98
    UPDATE SEQUENCE NUMBER           1
    FLAG (PRESENCE OF SECTION 2)     128
    BUFR MESSAGE TYPE                12
    BUFR MESSAGE SUBTYPE             213
    VERSION NUMBER OF LOCAL TABLE   1
    YEAR                             3
    MONTH                            12
    DAY                              27
    HOUR                             5
    MINUTE                           2
    VERSION NUMBER OF MASTER TABLE  11
    BUFR MASTER TABLE               0
1
    BUFR SECTION 2

    LENGTH OF SECTION 2              52

    REPORT DATA BASE KEY

    RDB DATA TYPE                   12
    RDB DATA SUBTYPE                213
    YEAR                             2003
    MONTH                            12
    DAY                              27
    HOUR                             5
    MINUTE                           2
    SECOND                           57
    LATITUDE 1                       73.86
    LONGITUDE 1                      104.81
    LATITUDE 2                       79.96
    LONGITUDE 2                      131.89
    NUMBER OF OBSERVATIONS            128
    IDENTIFIER                        60
    TOTAL BUFR MESSAGE LENGTH        7916
    DAY (RDB INSERTION)              27
    HOUR (RDB INSERTION)              8
    MINUTE (RDB INSERTION)           39
    SECOND (RDB INSERTION)            15
    DAY (MDB ARRIVAL)                27
    HOUR (MDB ARRIVAL)                8
    MINUTE (MDB ARRIVAL)             37
    SECOND (MDB ARRIVAL)             52
    CORRECTION NUMBER                0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                0
    PART OF MESSAGE                   0
    CORRECTION NUMBER                0
    PART OF MESSAGE                   0
    QUALITY CONTROL % CONF           70
1
    BUFR SECTION 3

    LENGTH OF SECTION 3 (BYTES)      10
    RESERVED                          0
    NUMBER OF DATA SUBSETS           128
    FLAG (DATA TYPE/DATA COMPRESSION) 192
```

## DATA DESCRIPTORS (UNEXPANDED)

1 312052

## DATA DESCRIPTORS (EXPANDED)

```
1 001007 SATELLITE IDENTIFIER
2 002019 SATELLITE INSTRUMENTS
3 001096 ACQUISITION STATION IDENTIFIER
4 025061 SOFTWARE IDENTIFICATION
5 005040 ORBIT NUMBER
6 025120 RA2_L2_PROCESSING FLAG
7 025121 RA2_L2_PROCESSING QUALITY
8 025124 MWR L2 PROCESSING FLAG
9 025125 MWR L2 PROCESSING QUALITY
10 025122 HARDWARE CONFIGURATION FOR RF
11 025123 HARDWARE CONFIGURATION FOR HPA
12 004001 YEAR
13 004002 MONTH
14 004003 DAY
15 004004 HOUR
16 004005 MINUTE
17 004006 SECOND
18 005001 LATITUDE (HIGH ACCURACY)
19 006001 LONGITUDE (HIGH ACCURACY)
20 007002 HEIGHT OR ALTITUDE
21 002119 RA-2 INSTRUMENT OPERATIONS
22 033047 MEASUREMENT CONFIDENCE DATA
23 010081 ALTITUDE OF COG ABOVE REFERENCE ELLIPSOID
24 010082 INSTANTANEOUS ALTITUDE RATE
25 010083 OFF NADIR ANGLE OF THE SATELLITE FROM PLATFORM DATA
26 010084 OFF NADIR ANGLE OF THE SATELLITE FROM WAVEFORM DATA
27 002116 PERCENTAGE OF 320 MHZ BAND PROCESSED
28 002117 PERCENTAGE OF 80 MHZ BAND PROCESSED
29 002118 PERCENTAGE OF 20 MHZ BAND PROCESSED
30 002156 PERCENTAGE OF VALID KU OCEAN RETRACKER MEASUREMENTS
31 002157 PERCENTAGE OF VALID S OCEAN RETRACKER MEASUREMENTS
32 014055 SOLAR ACTIVITY INDEX
33 022150 NUMBER OF 18 HZ VALID POINTS FOR KU BAND
34 022151 KU BAND OCEAN RANGE
35 022152 STD OF 18 HZ KU BAND OCEAN RANGE
36 022153 NUMBER OF 18 HZ VALID POINTS FOR S BAND
37 022154 S BAND OCEAN RANGE
38 022155 STD OF 18 HZ S BAND OCEAN RANGE
39 022156 KU BAND SIGNIFICANT WAVE HEIGHT
40 022157 STD 18 HZ KU BAND SIGNIFICANT WAVE HEIGHT
41 022158 S BAND SIGNIFICANT WAVE HEIGHT
42 022159 STD 18 HZ S BAND SIGNIFICANT WAVE HEIGHT
43 021137 KU BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT
44 021138 STD KU BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT
45 021139 KU BAND NET INSTRUMENTAL CORRECTION FOR ACG
46 021140 S BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT
47 021141 STD S BAND CORRECTED OCEAN BACKSCATTER COEFFICIENT
48 021142 S BAND NET INSTRUMENTAL CORRECTION FOR ACG
49 010085 MEAN SEA SURFACE HEIGHT
50 010086 GEOID HEIGHT
51 010087 OCEAN DEPTH/LAND ELEVATION
52 010088 TOTAL GEOCENTRIC OCEAN TIDE HEIGHT SOLUTION 1
53 010089 TOTAL GEOCENTRIC OCEAN TIDE HEIGHT SOLUTION 2
54 010090 LONG PERIOD TIDE HEIGHT
55 010091 TIDAL LOADING HEIGHT
56 010092 SOLID EARTH TIDE HEIGHT
57 010093 GEOCENTRIC POLE TIDE HEIGHT
58 011002 WIND SPEED
59 025126 MODEL DRY TROPOSPHERIC CORRECTION
60 025127 SEA SURFACE HEIGHT CORRECTION DUE TO PRESSURE LOADING
61 025128 MODEL WET TROPOSPHERIC CORRECTION
62 025129 MWR DERIVED WET TROPOSPHERIC CORRECTION
63 025130 RA2 IONOSPHERIC CORRECTION ON KU BAND
64 025131 IONOSPHERIC CORRECTION FROM DORIS ON KU BAND
65 025132 IONOSPHERIC CORRECTION FROM MODEL ON KU BAND
66 025133 SEA STATE BIAS CORRECTION ON KU BAND
67 025134 RA2 IONOSPHERIC CORRECTION ON S BAND
68 025135 IONOSPHERIC CORRECTION FROM DORIS ON S BAND
69 025136 IONOSPHERIC CORRECTION FROM MODEL ON S BAND
70 025137 SEA STATE BIAS CORRECTION ON S BAND
71 013096 MWR WATER VAPOUR CONTENT
72 013097 MWR LIQUID WATER CONTENT
73 011095 U COMPONENT OF THE MODEL WIND VECTOR
74 011096 V COMPONENT OF THE MODEL WIND VECTOR
75 012188 INTERPOLATED 23.8 GHZ BRIGHTNESS T FROM MWR
76 012189 INTERPOLATED 36.5 GHZ BRIGHTNESS T FROM MWR
77 002158 RA-2 INSTRUMENT
78 002159 MWR INSTRUMENT
79 033052 S BAND OCEAN RETRACKING QUALITY
80 033053 KU BAND OCEAN RETRACKING QUALITY
81 021143 KU BAND RAIN ATTENUATION
82 021144 ALTIMETER RAIN FLAG
```

STARTING SUBSET TO BE PRINTED : 1

ENDING SUBSET TO BE PRINTED : 1

1 SATELLITE IDENT	.6000000000E+02	CODE TABLE 001007	
2 SATELLITE INSTR	.1470000000E+03	CODE TABLE 002019	
3 ACQUISITION STA	.1020000000E+04	CCITTIA5	PDHS-K
4 SOFTWARE IDENTI	.1290120000E+06	CCITTIA5	RA2/4.56
5 ORBIT NUMBER	.9535000000E+04	NUMERIC	
6 RA2_L2_PROCESSI	.0000000000E+00	CODE TABLE 025120	
7 RA2_L2_PROCESSI	.9800000000E+02	%	
8 MWR L2 PROCESSI	.0000000000E+00	CODE TABLE 025124	
9 MWR L2 PROCESSI	.1000000000E+03	%	
10 HARDWARE CONFIG	.0000000000E+00	CODE TABLE 025122	
11 HARDWARE CONFIG	.0000000000E+00	CODE TABLE 025123	
12 YEAR	.2003000000E+04	YEAR	
13 MONTH	.1200000000E+02	MONTH	
14 DAY	.2700000000E+02	DAY	
15 HOUR	.5000000000E+01	HOUR	
16 MINUTE	.2000000000E+01	MINUTE	
17 SECOND	.5700000000E+02	SECOND	
18 LATITUDE (HIGH	.7996044922E+02	DEGREE	
19 LONGITUDE (HIGH	.1318923035E+03	DEGREE	
20 HEIGHT OR ALTIT	.0000000000E+00	M	
21 RA-2 INSTRUMENT	.6000000000E+01	CODE TABLE 002119	
22 MEASUREMENT CON	.4304000000E+05	FLAG TABLE 033047	
23 ALTITUDE OF COG	.7967498125E+06	M	
24 INSTANTANEOUS A	-.2809000015E+01	M/S	
25 OFF NADIR ANGLE		MISSING DEGREE**2	
26 OFF NADIR ANGLE	.0000000000E+00	DEGREE**2	
27 PERCENTAGE OF 3	.9400000000E+02	%	
28 PERCENTAGE OF 8	.3000000000E+01	%	
29 PERCENTAGE OF 2	.3000000000E+01	%	
30 PERCENTAGE OF V	.9200000000E+02	%	
31 PERCENTAGE OF V	.1000000000E+02	%	
32 SOLAR ACTIVITY	.5800000000E+02	NUMERIC	
33 NUMBER OF 18 HZ	.2000000000E+02	NUMERIC	
34 KU BAND OCEAN R	.7967596875E+06	M	
35 STD OF 18 HZ KU	.15800000073E+00	M	
36 NUMBER OF 18 HZ		MISSING NUMERIC	
37 S BAND OCEAN RA		MISSING M	
38 STD OF 18 HZ S		MISSING M	
39 KU BAND SIGNIFI	.0000000000E+00	M	
40 STD 18 HZ KU BA	.0000000000E+00	M	
41 S BAND SIGNIFI		MISSING M	
42 STD 18 HZ S BA		MISSING M	
43 KU BAND CORRECT	.1311999989E+02	DB	
44 STD KU BAND COR	.7900000215E+00	DB	
45 KU BAND NET INS	.1860000014E+01	DB	
46 S BAND CORRECT		MISSING DB	
47 STD S BAND COR		MISSING DB	
48 S BAND NET INS	.2529999971E+01	DB	
49 MEAN SEA SURFAC	-.4550000131E+00	M	
50 GEOID HEIGHT	-.1381999969E+01	M	
51 OCEAN DEPTH/LAN	-.3577000000E+04	M	
52 TOTAL GEOCENTRI	-.6300000101E-01	M	
53 TOTAL GEOCENTRI	-.3299999982E-01	M	
54 LONG PERIOD TID	.1099999994E-01	M	
55 TIDAL LOADING H	.0000000000E+00	M	
56 SOLID EARTH TID	-.3200000152E-01	M	
57 GEOCENTRIC POLE	-.2000000095E-02	M	
58 WIND SPEED	.2099999905E+01	M/S	
59 MODEL DRY TROPO	-.2302000046E+01	M	
60 SEA SURFACE HEI	-.2899999917E-01	M	
61 MODEL WET TROPO	-.1200000010E-01	M	
62 MWR DERIVED WET	-.5360000134E+00	M	
63 RA2 IONOSPHERIC		MISSING M	
64 IONOSPHERIC COR		MISSING M	
65 IONOSPHERIC COR	-.1099999994E-01	M	
66 SEA STATE BIAS	.0000000000E+00	M	
67 RA2 IONOSPHERIC		MISSING M	
68 IONOSPHERIC COR		MISSING M	
69 IONOSPHERIC COR	-.1979999989E+00	M	
70 SEA STATE BIAS	.0000000000E+00	M	
71 MWR WATER VAPOU	.9109999847E+02	KG/M**2	
72 MWR LIQUID WATE	.2029999971E+01	KG/M**2	
73 U COMPONENT OF	-.3700000048E+01	M/S	
74 V COMPONENT OF	.2200000048E+01	M/S	
75 INTERPOLATED 23	.2522100067E+03	K	
76 INTERPOLATED 36	.2493200073E+03	K	
77 RA-2 INSTRUMENT	.8000000000E+01	FLAG TABLE 002158	
78 MWR INSTRUMENT	.5600000000E+02	FLAG TABLE 002159	
79 S BAND OCEAN R	.2097150000E+07	FLAG TABLE 033052	
80 KU BAND OCEAN R	.0000000000E+00	FLAG TABLE 033053	
81 KU BAND RAIN AT	-.6553599854E+03	DB	
82 ALTIMETER RAIN	.1000000000E+01	FLAG TABLE 021144	



## 3.61 Bufr Table B differences

The following changes in units had happened from B000980000.TXT to B000980201.TXT:

Bufr Table B000980000.TXT

For this table:

KSEC1( 8)=0 - Version number of local tables used

KSEC1(15)=0 - Version number of Master table used.

013001	SPECIFIC HUMIDITY	G/G	5	0	14
013002	MIXING RATIO	G/G	5	0	14
013005	VAPOUR DENSITY	G/M**3	0	0	7
013011	TOTAL PRECIPITATION/TOTAL WATER	M	4	-1	14
013014	RAINFALL/WATER EQUIVALENT OF SNO	M/S	7	0	12
013015	SNOWFALL (AVERAGE RATE)	M/S	1	0	10
013016	PRECIPITABLE WATER	M	3	0	7
013019	TOTAL PRECIPITATION PAST 1 HOUR	M	4	-1	14
013020	TOTAL PRECIPITATION PAST 3 HOURS	M	4	-1	14
013021	TOTAL PRECIPITATION PAST 6 HOURS	M	4	-1	14
013022	TOTAL PRECIPITATION PAST 12 HOUR	M	4	-1	14
013023	TOTAL PRECIPITATION PAST 24 HOUR	M	4	-1	14
013031	EVAPOTRANSPIRATION	M	3	0	7
013032	EVAPORATION/EVAPOTRANSPIRATION	M	4	0	8
015202	INTEGRATED ELECTRON DENSITY	LOG/M**2	3	13000	12

Bufr Table B000980201.TXT

For this table:

KSEC1( 8)=1 - Version number of local tables used

KSEC1(15)=2 - Version number of Master table used.

013001	SPECIFIC HUMIDITY	KG/KG	5	0	14
013002	MIXING RATIO	KG/KG	5	0	14
013005	VAPOUR DENSITY	KG/M**3	3	0	7
013011	TOTAL PRECIPITATION/TOTAL WATER	KG/M**2	1	-1	14
013014	RAINFALL/WATER EQUIVALENT OF SNO	KG/(M**2) S	4	0	12
013015	SNOWFALL (AVERAGE RATE)	M/S	7	0	12
013016	PRECIPITABLE WATER	KG/M**2	0	0	7
013019	TOTAL PRECIPITATION PAST 1 HOUR	KG/M**2	1	-1	14
013020	TOTAL PRECIPITATION PAST 3 HOURS	KG/M**2	1	-1	14
013021	TOTAL PRECIPITATION PAST 6 HOURS	KG/M**2	1	-1	14
013022	TOTAL PRECIPITATION PAST 12 HOUR	KG/M**2	1	-1	14
013023	TOTAL PRECIPITATION PAST 24 HOUR	KG/M**2	1	-1	14
013031	EVAPOTRANSPIRATION	KG/M**2	0	0	7
013032	EVAPORATION/EVAPOTRANSPIRATION	KG/M**2	1	0	8
015202	INTEGRATED ELECTRON DENSITY	1/M**2	3	13000	12