

(14 November 2013)

BUFR Table D – *List of common sequences*

F	X	Category of sequences	Status
		NONE	

Category 02 – Meteorological sequences common to surface data

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 02 062	3 02 001	(SHIP "instantaneous" data from VOS)		Validation
		Pressure and 3-hour pressure change		
		Ship temperature and humidity data		
		Ship visibility data		
		Height of sensor above water surface	Set to missing (cancel)	
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Precipitation past 24 hours	R24R24R24R24	
		Height of sensor above local ground (or deck of marine platform)	Set to missing (cancel)	
		Cloud cover (total)	N	
		Vertical significance (surface observations)		
		Height of base of cloud	h	
		Delayed replication of 4 descriptors		
		Short delayed descriptor replication factor		
		Cloud amount	Low or middle clouds Nh	
		Cloud type	Low clouds CL	
		Cloud type	Middle clouds CM	
		Cloud type	High clouds CH	
		Delayed replication of 1 descriptor		
		Delayed descriptor replication factor		
		Cloud layer		
		Vertical significance (surface observations)	Set to missing (cancel)	
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Icing and ice		
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Sea/water temperature		
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Waves		
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Wind and swell waves		
3 02 063	3 02 038	(SHIP "period" data from VOS)		Validation
		Present and past weather		
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Precipitation measurement		
		Delayed replication of 1 descriptor		
		Short delayed descriptor replication factor		
		Ship extreme temperature data		
	3 02 064	Wind data from VOS		

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TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 02 064	0 07 032	(Wind data from VOS)		
		Height of sensor above local ground (or deck of marine platform)	Wind measurement	Validation
		Height of sensor above water surface	Wind measurement	
		Type of instrumentation for wind measurement	iw	
		Time significance	= 2 Time averaged	
		Time period or displacement	= -10 minutes, or number of minutes after a significant change of wind	
		Wind direction	dd	
		Wind speed	ff	
		Time significance	Set to missing	
		Delayed replication of 3 descriptors		
		Delayed descriptor replication factor		
		Time period or displacement	Minutes	
		Maximum wind gust direction		
		Maximum wind gust speed	910fmfm, 911fxfx	

TABLE REFERENCE F X Y			ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 02 067	0 01 023	0 04 025	(Additional synoptical parameters)		
			Observation sequence number		Validation
			Time period or displacement	= 0 minutes	
			Method of snow depth measurement	= 0 Manual observation, = 1 Ultrasonic method, = 2 Video camera method, = 3–13 Reserved, = 14 Others, = 15 Missing value	
	1 01 000		Delayed replication of 1 descriptor		
	0 31 001		Delayed descriptor replication factor		
	0 20 003		Present weather	960ww, 961ww	
	1 02 000		Delayed replication of 2 descriptors		
	0 31 001		Delayed descriptor replication factor		
	0 05 021		Bearing or azimuth	981VV–988VV	
	0 20 001		Horizontal visibility	VV	
	0 05 021		Bearing or azimuth	Set to missing (cancel)	
	1 01 000		Delayed replication of 1 descriptor		
	0 31 000		Short delayed descriptor replication factor		
	3 02 056		Sea/water temperature	Sea surface temperature, method of measurement, and depth below sea surface	
	1 03 000		Delayed replication of 3 descriptors		
	0 31 000		Short delayed descriptor replication factor		
	0 33 041		Attribute of following value		
	0 20 058		Visibility seawards from a coastal station	980VsVs	
	0 22 061		State of the sea	924SVs	
	1 01 000		Delayed replication of 1 descriptor		
	0 31 000		Short delayed descriptor replication factor		
	3 02 022		Wind waves		
	1 01 000		Delayed replication of 1 descriptor		
	0 31 001		Delayed descriptor replication factor		
	3 02 023		Swell waves		
	1 04 000		Delayed replication of 4 descriptors		
	0 31 001		Delayed descriptor replication factor		
	0 20 054		True direction from which a phenomenon or clouds are moving	Da, Dp	
	0 20 137		Evolution of clouds	940Cn3	
	0 20 012		Cloud type	941CDp, 943CLDp	
	0 20 090		Special clouds	993CsDa	
	0 20 136		Supplementary cloud type	948C0Da, 949CaDa, 950Nmn3, 951Nvn4	
	0 04 025		Time period or displacement	Reference period of fresh fallen snow	
	0 13 012		Depth of fresh snow		
	0 04 025		Time period or displacement	= –60 minutes	
	0 11 042		Maximum wind speed (10-minute mean wind)	912ff	
	1 04 000		Delayed replication of 4 descriptors		
	0 31 001		Delayed descriptor replication factor		
	0 08 021		Time significance	= 30 Time of occurrence, = 17 Start of phenomenon	
	0 04 025		Time period or displacement	= –xx 902tt	

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TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
	0 11 042	Maximum wind speed (10-minute mean wind)	912ff	
	0 08 021	Time significance	Set to missing (cancel)	
	1 15 000	Delayed replication of 15 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 08 021	Time significance	= 30 Time of occurrence, = 17 Start of phenomenon	
	0 04 015	Time increment	= -xx1	
	0 08 021	Time significance	= 2 Time averaged	
	0 04 025	Time period or displacement	= -10 minutes, or number of minutes after a significant change of wind	
	0 11 001	Wind direction	915dd	
	0 11 002	Wind speed	913ff	
	0 08 021	Time significance	= 22 Time of occurrence of wind shift	
	0 04 015	Time increment	= +xx2	
	0 08 021	Time significance	= 2 Time averaged	
	0 04 025	Time period or displacement	= -10 minutes, or number of minutes after a significant change of wind	
	0 11 001	Wind direction	915dd	
	0 11 002	Wind speed	913ff	
	0 08 021	Time significance	Set to missing (cancel)	
	0 04 025	Time period or displacement	= 0 minutes	
	0 04 015	Time increment	= +(xx1-xx2) Non negative to reset the time to the actual time	
	1 03 000	Delayed replication of 3 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 04 025	Time period or displacement	= -xx, i.e. from	
	0 04 025	Time period or displacement	= -xx, i.e. to	
	0 20 003	Present weather	962ww, 963w1w1, 964ww, 965w1w1, 966ww, 967w1w1	
	1 10 000	Delayed replication of 10 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 04 025	Time period or displacement	= -xx, i.e. from	
	0 04 025	Time period or displacement	= -xx, i.e. to	
	0 05 021	Bearing or azimuth	Da, Dp	
	0 05 021	Bearing or azimuth	Da, Dp	
	0 20 054	True direction from which a phenomenon or clouds are moving	Da, Dp	
	0 20 024	Intensity of phenomena	= 1 Light, = 2 Moderate, = 3 Heavy, = 4 Violent, = 5 Severe	
	0 20 025	Obscuration		
	0 20 026	Character of obscuration		
	0 20 027	Phenomena occurrence		
	0 20 063	Special phenomena		

**Category 06 – Meteorological or oceanographic
sequences common to oceanographic
observations**

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
		(Sequence for representation of tide station identification, method of transmission, time the message is transmitted and reference time for reports in a time series)		
3 06 011	3 01 021	Latitude/longitude (high accuracy)		Validation
	0 01 075	Tide station identification	Alphanumeric ID (5 characters)	
	0 02 147	Method of transmission to collection centre		
	3 01 011	Year, month, day	Time the message is transmitted to the collection centre	
	3 01 013	Hour, minute, second		
		(Sequence for representation of sensor type, significance qualifier for sensor and status of operation)		
3 06 012	0 02 007	Type of sensor for water level measuring instrument		Validation
	0 08 015	Significance qualifier for sensor		
	0 08 032	Status of operation		
	3 06 029	Sequence for representation of tsunameter sampling information for water column heights in the time series report		
		(Sequence for representation of water level and residual in the time series)		
3 06 013	3 06 012	Sequence for representation of sensor type, significance qualifier for sensor and status of operation		Validation
	3 01 011	Year, month, day	Reference date/time for the time series	
	3 01 013	Hour, minute, second		
	0 22 120	Tide station automated water level check		
	0 22 121	Tide station manual water level check		
	0 04 015	Time increment	Added to reset the reference time	
	0 04 065	Short time increment	Added to each data value in the time series	
	1 02 000	Delayed replication of 2 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 22 038	Tidal elevation with respect to local chart datum		
	0 22 040	Meteorological residual tidal elevation (surge or offset)		

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TABLE REFERENCE F X Y			ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 06 014	3 06 012		(Sequence for representation of water level in the time series, similar to 306013 but with no residual)		Validation
			Sequence for representation of sensor type, significance qualifier for sensor and status of operation		
		3 01 011	Year, month, day	Reference date/time for the time series	
		3 01 013	Hour, minute, second		
		0 22 120	Tide station automated water level check		
		0 22 121	Tide station manual water level check		
		0 04 015	Time increment	Added to reset the reference time	
		0 04 065	Short time increment	Added to each data value in the time series	
		1 01 000	Delayed replication of 1 descriptor		
		0 31 001	Delayed descriptor replication factor		
3 06 016	3 01 011		(Sequence for representation of ancillary meteorological data associated with water level data)		Validation
			Year, month, day	Reference date/time for the time series	
		3 01 013	Hour, minute, second		
		0 10 004	Pressure	Station level	
		0 10 051	Pressure reduced to mean sea level		
		3 02 032	Temperature and humidity data		
3 06 032	0 02 032		(Buoy data including directional and non-directional wave data)		Validation
			Indicator for digitization		
			Method of salinity/depth measurement		
		1 03 000	Delayed replication of 3 descriptors		
		0 31 001	Delayed descriptor replication factor		
		0 07 062	Depth below sea/water surface		
		0 22 043	Sea/water temperature		
		0 22 062	Salinity		
	0 22 066		Water conductivity		

Category 07 – Surface report sequences (land)

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
		(BUFR template for surface observations from n-minute period with national and WMO station identification)		
3 07 092	3 01 089	National station identification		Validation
	3 01 090	Surface station identification; time, horizontal and vertical coordinates		
	0 08 010	Surface qualifier (for temperature data)		
	3 01 091	Surface station instrumentation		
	0 04 015	Time increment	= -n (minutes)	
	0 04 065	Short time increment	= 1 (minute)	
	1 32 000	Delayed replication of 32 descriptors		
	0 31 001	Delayed descriptor replication factor	= n	
	0 10 004	Pressure		
	1 02 000	Delayed replication of 2 descriptors		
	0 31 001	Delayed descriptor replication factor		
	3 02 070	Wind data		
	3 02 072	Temperature and humidity data		
	1 03 000	Delayed replication of 3 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 07 032	Height of sensor above local ground (or deck of marine platform)		
	0 08 010	Surface qualifier (for temperature data)		
	0 12 120	Ground temperature		
	0 07 032	Height of sensor above local ground (or deck of marine platform)	Set to missing (cancel)	
	0 08 010	Surface qualifier (for temperature data)	Set to missing (cancel)	
	1 03 000	Delayed replication of 3 descriptors		
	0 31 000	Short delayed descriptor replication factor		
	1 01 005	Replicate 1 descriptor 5 times		
	3 07 063	Depth below land surface and soil temperature		
	0 07 061	Depth below land surface	Set to missing (cancel)	
	1 01 000	Delayed replication of 1 descriptor		
	0 31 000	Short delayed descriptor replication factor		
	3 02 069	Visibility data		
	0 07 032	Height of sensor above local ground (or deck of marine platform)	Set to missing (cancel)	
	0 07 033	Height of sensor above water surface	Set to missing (cancel)	
	1 01 000	Delayed replication of 1 descriptor		
	0 31 000	Short delayed descriptor replication factor		
	3 02 073	Cloud data		
	1 01 000	Delayed replication of 1 descriptor		
	0 31 000	Short delayed descriptor replication factor		
	3 02 076	Precipitation, obscuration and other phenomena		
	1 02 000	Delayed replication of 2 descriptors		
	0 31 000	Short delayed descriptor replication factor		
	0 13 155	Intensity of precipitation (high accuracy)		
	0 13 058	Size of precipitating element		
	1 02 000	Delayed replication of 2 descriptors		

TABLE REFERENCE			ELEMENT NAME	ELEMENT DESCRIPTION	Status
F	X	Y			
			0 31 000	Short delayed descriptor replication factor	
			0 20 031	Ice deposit (thickness)	
			0 20 032	Rate of ice accretion (estimated)	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 000	Short delayed descriptor replication factor	
			3 02 078	State of ground and snow depth measurement	
			1 02 000	Delayed replication of 2 descriptors	
			0 31 000	Short delayed descriptor replication factor	
			3 02 079	Precipitation measurement	
			0 07 032	Height of sensor above local ground (or deck of marine platform)	Set to missing (cancel)
			1 01 000	Delayed replication of 1 descriptor	
			0 31 000	Short delayed descriptor replication factor	
			3 02 080	Evaporation measurement	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 000	Short delayed descriptor replication factor	
			3 02 081	Total sunshine data	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 000	Short delayed descriptor replication factor	
			3 02 082	Radiation data	
			1 02 000	Delayed replication of 2 descriptors	
			0 31 000	Short delayed descriptor replication factor	
			0 04 025	Time period or displacement	= -n (minutes)
			0 13 059	Number of flashes (thunderstorm)	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 000	Short delayed descriptor replication factor	
			3 02 083	First-order statistics of P, W, T, U data	
			0 33 005	Quality information (AWS data)	
			0 33 006	Internal measurement status information (AWS)	
			(Nominal values)		
3 07 093			2 23 000	Substituted values operator	Validation
			2 36 000	Define data present bit-map	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 001	Delayed descriptor replication factor	= Number of element descriptors
			0 31 031	Data present indicator	
			0 01 033	Identification of originating/generating centre	
			0 01 032	Generating application	
			0 08 083	Nominal value indicator	
			1 01 000	Delayed replication of 1 descriptor	
			0 31 001	Delayed descriptor replication factor	
			2 23 255	Substituted values marker operator	
			1 08 000	Delayed replication of 8 descriptors	
			0 31 001	Delayed descriptor replication factor	
			2 23 000	Substituted values operator	
			2 37 000	Use defined data present bit-map	
			0 01 033	Identification of originating/generating centre	
			0 01 032	Generating application	
			0 08 083	Nominal value indicator	

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TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
	1 01 000	Delayed replication of 1 descriptor		
	0 31 001	Delayed descriptor replication factor		
	2 23 255	Substituted values marker operator		
		(Synoptic data for national use (Canada))		
3 07 100	0 04 024	Time period	= -6 Following values apply to the 6 hour period preceding reference time	Validation
	1 02 000	Delayed replication of 2 descriptors		
	0 31 000	Short delayed descriptor replication factor		
	0 13 057	Time of beginning/end of precipitation	909RtDc	
	0 26 020	Duration of precipitation		
	1 01 000	Depth of newly-fallen snow		
	0 31 000	Short delayed descriptor replication factor		
	0 13 012	Depth of Fresh Snow	931ss	
	3 01 012	Hour, minute		
	0 04 024	Time period	Hours Set to -24 Values apply to the 24 hour period ending at the last T = 06 Z	
	1 03 000	Delayed replication of 3 descriptors	Bright sunshine	
	0 31 000	Delayed descriptor replication factor		
	0 02 006	Data Obtained by	= 1 Obtained by derivation	
	0 14 031	Bright Sunshine	5SSSS	
	0 02 006	Data Obtained by	= 0 Obtained by measurement	
	1 04 000	Delayed replication of 4 descriptors	Snowfall amount/water equivalent	
	0 31 000	Short delayed descriptor replication factor		
	0 02 175	Method of precipitation measurement		
	0 13 119	Snowfall amount	1SSSS	
	0 02 175	Method of precipitation measurement		
	0 13 120	Amount of water equivalent of snow	2SwSwSwSw	
	1 07 000	Delayed replication of 7 descriptors	Max wind speed/direction	
	0 31 000	Short delayed replication factor		
	0 08 021	Time significance	= 30 Time of occurrence	
	0 04 004	Hour	4FhFTFTFI	
	0 04 005	Minutes	Time of occurrence minutes	
	0 11 001	Wind direction	3dmdm	
	0 08 023	First order statistics	= 2 Max, value	
	0 11 002	Wind Speed	fmfm	
	0 08 021		= 0 Cancel	
	0 04 024	Time period in hours	= 0 Set to initial time value	
	3 01 012	Hour, minute		

Category 08 – Surface report sequences (sea)

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 08 008	3 01 093	(Report from a buoy observation)		
		Ship identification, movement, date/time, horizontal and vertical coordinates		Validation
		SHIP "instantaneous" data from VOS		
		SHIP "period" data from VOS		
3 08 014	3 01 093	(Synoptic report from a sea station suitable for SHIP observation data from VOS station)		
		Ship identification, movement, date/time, horizontal and vertical coordinates		Validation
		SHIP "instantaneous" data from VOS		
		SHIP "period" data from VOS		

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
		(Template for WAVEOB data expressed as frequency (Ia=0 in FM-65 WAVEOB))		
		<i>Identification</i>		
3 08 015	0 01 003	WMO Region number/geographical area		Validation
	0 01 020	WMO Region sub-area		
	0 01 005	Buoy/platform identifier		
	0 01 011	Ship or mobile land station identifier		
	0 01 007	Satellite identifier		
	0 01 001	WMO block number		
	0 01 002	WMO station number		
	0 02 044	Indicator for method of calculating spectral wave data		
	0 02 045	Indicator for type of platform		
	3 01 011	Year, month, day		
	3 01 012	Hour, minute		
	3 01 021	Latitude/longitude (high accuracy)		
		<i>Basic data (WAVEOB Section 0)</i>		
	0 22 063	Total water depth	m	
	1 05 002	Replicate 5 descriptors 2 times		
	0 02 046	Wave measurement instrumentation		
	0 22 070	Significant wave height	m	
	0 22 071	Spectral peak wave period	s	
	0 22 073	Maximum wave height		
	0 22 074	Average wave period	s	
	0 02 046	Wave measurement instrumentation		
	0 22 076	Direction from which dominant waves are coming	deg	
	0 22 077	Directional spread of dominant wave	deg	
	0 22 094	Total number of wave bands		
	0 25 043	Wave sampling interval (time)	s	
	0 22 078	Duration of wave record	s	
		<i>Spectral data (WAVEOB Section 1 - 5)</i>		
	1 21 000	Delayed replication of 21 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 02 046	Wave measurement instrumentation		
	0 22 082	Maximum non-directional spectral wave density	m ² /Hz	
	0 22 084	Band containing maximum non-directional spectral wave density		
	1 16 000	Delayed replication of 16 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 22 080	Waveband central frequency	Hz	
	0 22 085	Spectral wave density ratio		
	0 22 086	Mean direction from which waves are coming	deg	
	0 22 087	Principal direction from which waves are coming	deg	
	0 22 088	First normalized polar coordinate from Fourier coefficients		
	0 22 089	Second normalized polar coordinate from Fourier coefficients		
	1 03 000	Delayed replication of 3 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 22 090	Non-directional spectral estimate by wave frequency	m ² /Hz	

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TABLE REFERENCE			TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
F	X	Y				
			0 22 186	Direction from which waves are coming	deg	
			0 22 187	Directional spread of wave	deg	
			1 03 000	Delayed replication of 3 descriptors		
			0 31 001	Delayed descriptor replication factor		
			0 22 092	Directional spectral estimate by wave frequency	m2/Hz/rad	
			0 22 186	Direction from which waves are coming	deg	
			0 22 187	Directional spread of wave	deg	
			0 02 046	Wave measurement instrumentation		

TABLE REFERENCE F X Y	TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
		(Template for WAVEOB data expressed as the wave number (Ia=1 in FM-65 WAVEOB))		
		<i>Identification</i>		
3 08 016	0 01 003	WMO Region number/geographical area		Validation
	0 01 020	WMO Region sub-area		
	0 01 005	Buoy/platform identifier		
	0 01 011	Ship or mobile land station identifier		
	0 01 007	Satellite identifier		
	0 01 001	WMO block number		
	0 01 002	WMO station number		
	0 02 044	Indicator for method of calculating spectral wave data		
	0 02 045	Indicator for type of platform		
	3 01 011	Year, month, day		
	3 01 012	Hour, minute		
	3 01 021	Latitude/longitude (high accuracy)		
		<i>Basic data (WAVEOB Section 0)</i>		
	0 22 063	Total water depth	m	
	1 05 002	Replicate 5 descriptors 2 times		
	0 02 046	Wave measurement instrumentation		
	0 22 070	Significant wave height	m	
	0 22 072	Spectral peak wave length	m	
	0 22 073	Maximum wave height		
	0 22 075	Average wave length	m	
	0 02 046	Wave measurement instrumentation		
	0 22 076	Direction from which dominant waves are coming	deg	
	0 22 077	Directional spread of dominant wave	deg	
	0 22 094	Total number of wave bands		
	0 25 044	Wave sampling interval (space)	m	
	0 22 079	Length of wave record	m	
		<i>Spectral data (WAVEOB Section 1 - 5)</i>		
	1 21 000	Delayed replication of 21 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 02 046	Wave measurement instrumentation		
	0 22 083	Maximum non-directional spectral wave number	m3	
	0 22 084	Band containing maximum non-directional spectral wave density		
	1 16 000	Delayed replication of 16 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 22 081	Waveband central wave number	1/m	
	0 22 085	Spectral wave density ratio		
	0 22 086	Mean direction from which waves are coming	deg	
	0 22 087	Principal direction from which waves are coming	deg	
	0 22 088	First normalized polar coordinate from Fourier coefficients		
	0 22 089	Second normalized polar coordinate from Fourier coefficients		
	1 03 000	Delayed replication of 3 descriptors		
	0 31 001	Delayed descriptor replication factor		
	0 22 091	Non-directional spectral estimate by wave number	m3	
	0 22 186	Direction from which waves are coming	deg	

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TABLE REFERENCE			TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
F	X	Y				
			0 22 187	Directional spread of wave	deg	
			1 03 000	Delayed replication of 3 descriptors		
			0 31 001	Delayed descriptor replication factor		
			0 22 093	Directional spectral estimate by wave number	m4	
			0 22 186	Direction from which waves are coming	deg	
			0 22 187	Directional spread of wave	deg	
			0 02 046	Wave measurement instrumentation		

Category 15 – Oceanographic report sequences

TABLE REFERENCE F X Y			TABLE REFERENCE	ELEMENT NAME	ELEMENT DESCRIPTION	Status
3 15 006				(Typically reported underwater sounding without optional fields)		
	0 01 011			Ship or mobile land station identifier	Ship's call sign	Validation
	3 01 011			Year, month, day		
	3 01 012			Hour, minute		
	3 01 023			Latitude/longitude (coarse accuracy)		
	3 06 032			Buoy data including directional and non-directional wave data	Depth, temperature, salinity	