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BUFR/CREX EVOLVING Table D - Lists of common sequences *(Updated 17/10/08)*

ATTRIBUTE OF TABLE ELEMENT NAME:

NO ATTRIBUTE: Operational entry (details found in file: “Table D - BUFR. List of common sequences”)

(VAL) = Entry awaiting validation (details found in file: “BUFR/CREX - entries awaiting validation”)

(PRE) = Entry with pre-operational status (details found in file: “Additions to BUFR/CREX Tables for pre-operational implementation”)

(CBS) = Entry approved by CBS with pre-operational status (details found in file: “Additions to BUFR/CREX Tables for pre-operational implementation”)

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3	00	BUFR table entries sequences
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Category 00 - BUFR table entries sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	00	002	
3	00	003	
3	00	004	
3	00	010	
D	00	010	

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Category 01 - Location and Identification sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	01	001	
3	01	002	
3	01	003	
3	01	004	<i>(Surface station identification)</i>
3	01	005	<i>(Originating centre/sub-centre)</i>
3	01	011	
3	01	012	
3	01	013	
3	01	014	<i>(Time period)</i>
3	01	021	
3	01	022	
3	01	023	
3	01	024	
3	01	025	
3	01	026	
3	01	027	<i>(Description of a feature in 3-D or in 2-D, in the last case replication = 1)</i>
3	01	028	<i>(Horizontal section of a feature described as a polygon or a line or a point; in the last case replication = 1)</i>
D	01	029	<i>(Identification)</i>
D	01	030	<i>(Identification - with physical location)</i>
3	01	031	
3	01	032	
3	01	033	<i>(Buoy/platform — fixed)</i>
3	01	034	<i>(Buoy/platform — fixed)</i>
3	01	035	<i>(Buoy/platform — moving)</i>
3	01	036	<i>(Ship)</i>
3	01	037	<i>(Land station for vertical soundings)</i>
3	01	038	<i>(Land station for vertical soundings)</i>
3	01	039	<i>(Ship for vertical soundings)</i>
3	01	040	
3	01	041	
3	01	042	
3	01	043	
3	01	044	
3	01	045	<i>(Satellite location and velocity)</i>
3	01	046	
3	01	047	<i>(ERS product header)</i>
3	01	048	<i>(Radar parameters)</i>
3	01	049	<i>(Radar beam data)</i>
3	01	051	
3	01	055	
3	01	058	<i>(VAL) (Universal template for representation of lightning data)</i>
3	01	059	<i>(VAL)(Identification of sensor site and instrumentation for Lightning detection)</i>
3	01	062	<i>(Radar location(s))</i>
3	01	065	<i>(ACARS identification)</i>
3	01	066	<i>(ACARS location)</i>
D	01	070	<i>(Ozone instrumentation -Brewer spectrophotometer)</i>
3	01	071	<i>(Satellite identifier/Generating resolution)</i>
3	01	072	<i>(Satellite identification)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
D	01	074	<i>(Ozone instrumentation -Dobson spectrophotometer)</i>
D	01	075	<i>(Sounding identification)</i>
D	01	076	<i>(Ozone sounding instrumentation)</i>
3	01	089	(PRE) <i>(National station identification)</i>
3	01	090	<i>(Fixed surface station identification; time, horizontal and vertical co-ordinates)</i>
3	01	091	<i>(Surface station instrumentation)</i>
3	01	092	<i>(Mobile surface station identification, time, horizontal and vertical coordinates)</i>
3	01	093	<i>(Ship identification, movement, type, date/time, horizontal and vertical coordinates)</i>
3	01	110	<i>(Identification of launch site and instrumentation for wind measurements)</i>
3	01	111	<i>(Identification of launch site and instrumentation for P, T, U and wind measurements)</i>
3	01	112	<i>(Identification of launch point and instrumentation of dropsonde)</i>
3	01	113	<i>(Date/time of launch)</i>
3	01	114	<i>(Horizontal and vertical coordinates of launch site)</i>
3	01	120	<i>(Radiosonde abbreviated header and launch information)</i>
3	01	121	<i>(Radiosonde launch point location)</i>
3	01	122	<i>(Date/time (to hundredths of second))</i>
3	01	123	<i>(Radiosonde full header information)</i>
3	01	125	<i>(ASCAT header information)</i>

Category 02 - Meteorological sequences common to surface data

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	02	001	<i>(Pressure data)</i>
3	02	002	<i>(High altitude station)</i>
3	02	003	
3	02	004	<i>(General cloud information)</i>
3	02	005	
3	02	006	
3	02	011	<i>(Low altitude station)</i>
3	02	012	<i>(High altitude station)</i>
3	02	013	
D	02	013	
3	02	021	
3	02	022	
3	02	023	
3	02	024	
3	02	031	<i>(Pressure data)</i>
3	02	032	<i>(Temperature and humidity data)</i>
3	02	033	<i>(Visibility data)</i>
3	02	034	<i>(Precipitation past 24 hours)</i>
3	02	035	<i>(Basic synoptic «instantaneous» data)</i>
3	02	036	<i>(Clouds with bases below station level)</i>
3	02	037	<i>(State of ground, snow depth, ground minimum temperature)</i>
3	02	038	<i>(Present and past weather)</i>
3	02	039	<i>(Sunshine data)</i>
3	02	040	<i>(Precipitation measurement)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	02	041	<i>(Extreme temperature data)</i>
3	02	042	<i>(Wind data)</i>
3	02	043	<i>(Basic synoptic "period" data)</i>
3	02	044	<i>(Evaporation data)</i>
3	02	045	<i>(Radiation data)</i>
3	02	046	<i>(Temperature change)</i>
3	02	047	<i>(Direction of cloud drift)</i>
3	02	048	<i>(Direction and elevation of cloud)</i>
3	02	049	<i>(Cloud information reported with vertical soundings)</i>
3	02	050	<i>(Radiosonde surface observation)</i>
3	02	051	
3	02	052	<i>(Temperature and humidity data)</i>
3	02	053	<i>(Visibility data)</i>
3	02	054	<i>(SHIP "instantaneous" data)</i>
3	02	055	<i>(Icing and ice)</i>
3	02	056	<i>(Sea/water temperature)</i>
3	02	057	<i>(SHIP marine data)</i>
3	02	058	<i>(Extreme temperature data)</i>
3	02	059	<i>(Wind data)</i>
3	02	060	<i>(SHIP "period" data)</i>
3	02	062	<i>(VAL) (SHIP "instantaneous" data from VOS)</i>
3	02	063	<i>(VAL) (SHIP "period" data from VOS)</i>
3	02	064	<i>(VAL) (Wind data from VOS)</i>
3	02	066	<i>(Dangerous weather phenomena)</i>
3	02	069	<i>(Visibility data)</i>
3	02	070	<i>(Wind data)</i>
3	02	071	<i>(Wind data from one-hour period)</i>
3	02	072	<i>(Temperature and humidity data)</i>
3	02	073	<i>(Cloud data)</i>
3	02	074	<i>(Present and past weather)</i>
3	02	075	<i>(Intensity of precipitation, size of precipitation element)</i>
3	02	076	<i>(Precipitation, obscuration and other phenomena)</i>
3	02	077	<i>(Extreme temperature data)</i>
3	02	078	<i>(State of ground and snow depth measurement)</i>
3	02	079	<i>(Precipitation measurement)</i>
3	02	080	<i>(Evaporation measurement)</i>
3	02	081	<i>(Total sunshine data)</i>
3	02	082	<i>(Radiation data)</i>
3	02	083	<i>(First order statistics of P, W, T, U data)</i>
3	02	084	<i>(VAL) ("Instantaneous" data of sequence 307096)</i>
3	02	085	<i>(VAL) ("Period" data of sequence 307096)</i>
3	02	089	<i>(VAL) (Locust information)</i>

Category 03 - Meteorological sequences common to vertical soundings data

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	03	001	
3	03	002	
3	03	003	
3	03	004	
3	03	011	
3	03	012	
3	03	013	
3	03	014	
3	03	021	
3	03	022	
3	03	023	
3	03	024	
3	03	025	
3	03	026	
3	03	027	
3	03	031	
3	03	032	
3	03	033	
3	03	040	<i>(Radiosonde duration of flight and termination information)</i>
3	03	041	<i>(Wind sequence)</i>
3	03	050	<i>(Wind data at a pressure level with radiosonde position)</i>
3	03	051	<i>(Wind shear data at a pressure level with radiosonde position)</i>
3	03	052	<i>(Wind data at a height level with radiosonde position)</i>
3	03	053	<i>(Wind shear data at a height level with radiosonde position)</i>
3	03	054	<i>(Temperature, dew-point and wind data at a pressure level with radiosonde position)</i>
3	03	055	<i>(VAL) (Temperature, dew-point, relative humidity and wind data at height levels with radiosonde position)</i>

Category 04 - Meteorological sequences common to satellite observations

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	04	001	
3	04	002	
3	04	003	
3	04	004	
3	04	005	
3	04	006	
3	04	011	<i>(GOES-IM info)</i>
3	04	030	<i>(Location of platform)</i>
3	04	031	<i>(Speed of platform)</i>
3	04	032	<i>(Cloud fraction)</i>
3	04	033	<i>(Clear sky radiance)</i>
3	04	034	
3	04	035	<i>(PRE) (All sky radiance data)</i>
3	04	036	<i>(PRE) (Cloud coverage)</i>

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Category 05 - Meteorological or hydrological sequences common to hydrological observations

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
D	05	001	<i>(SADC-HYCOS single measurement)</i>
D	05	002	<i>(SADC-HYCOS environmental measurement)</i>
3	05	003	<i>(SADC-HYCOS measurement array definition)</i>
D	05	003	<i>(SADC-HYCOS measurement array definition)</i>
D	05	004	<i>(SADC-HYCOS report)</i>
3	05	006	<i>(MEDHYCOS measurement)</i>
D	05	006	<i>(MEDHYCOS measurement)</i>
3	05	007	<i>(MEDHYCOS report)</i>
D	05	007	<i>(MEDHYCOS report)</i>
3	05	008	<i>(AOCHYCOS - Chad measurement)</i>
D	05	008	<i>(AOCHYCOS - Chad measurement)</i>
3	05	009	<i>(AOCHYCOS-Chad report)</i>
D	05	009	<i>(AOCHYCOS-Chad report)</i>
D	05	010	<i>(MEDHYCOS measurement type 2)</i>
3	05	011	<i>(MEDHYCOS report type 2)</i>
D	05	011	<i>(MEDHYCOS report type 2)</i>
D	05	016	<i>(Meteorological parameters associated with hydrological data)</i>
D	05	017	<i>(Water quality measurement)</i>
3	05	018	<i>(MEDHYCOS report with meteorology and water quality data)</i>
D	05	018	<i>(MEDHYCOS report with meteorology and water quality data)</i>

Category 06 - Meteorological or oceanographic sequences common to oceanographic observations

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	06	001	
D	06	001	
3	06	002	
3	06	003	
3	06	004	
D	06	004	
3	06	005	
D	06	005	
3	06	006	<i>(Under water sounding (optional) parameters)</i>
3	06	007	<i>(Buoy spare block parameters)</i>
3	06	008	<i>(Buoy instrumentation parameters)</i>
3	06	011	<i>(VAL) (Sequence for representation of tide station identification, method of transmission, time the message is transmitted and reference time for reports in a time series)</i>
3	06	012	<i>(VAL) (Sequence for representation of sensor type, significance qualifier for sensor and status of operation)</i>
3	06	013	<i>(VAL) (Sequence for representation of water level and residual in the time series)</i>
3	06	014	<i>(VAL) (Sequence for representation of water level in the time series, similar to 306013 but with no residual)</i>
3	06	016	<i>(VAL) (Sequence for representation of ancillary meteorological data associated with water level data)</i>
D	06	019	<i>(Tide report identification, water level checks, time period or displacement, time increment)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
D	06	020	<i>(Tide report identification, water level checks, time period or displacement, time increment) – Deprecated, use D 06 019</i>
D	06	021	<i>(Meteorological parameters in tide station)</i>
D	06	022	<i>(Tidal elevation)</i>
3	06	023	
D	06	024	<i>(Tidal elevation series) – Deprecated, use D 06 025</i>
D	06	025	<i>(Tidal elevation series)</i>
D	06	026	<i>(VAL) (Template for tide elevation)</i>
3	06	027	<i>(VAL) (Sequence for representation of DART buoy identification, transmitter ID, type of tsunameter and the time the message is transmitted to the ground system)</i>
3	06	028	<i>(VAL) (Sequence for representation of time of observation and DART buoy position daily report)</i>
3	06	029	<i>(VAL) (Sequence for representation of tsunameter sampling information for water column heights in the time series report)</i>
3	06	030	<i>(VAL) (Sequence for representation of DART buoy standard hourly report)</i>
3	06	031	<i>(VAL) (Sequence for representation of DART buoy tsunami event reports and extended tsunami event reports)</i>

Category 07 - Surface report sequences (land)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	07	001	<i>(Low altitude station)</i>
3	07	002	<i>(Low altitude station)</i>
3	07	003	<i>(Low altitude station)</i>
D	07	003	<i>(Low altitude station)</i>
3	07	004	<i>(Low altitude station)</i>
D	07	004	<i>(Low altitude station)</i>
3	07	005	<i>(Low altitude station)</i>
3	07	006	<i>(Low altitude station)</i>
3	07	007	<i>(High altitude station)</i>
3	07	008	<i>(High altitude station)</i>
3	07	009	
3	07	011	<i>(Main part of data for representation of METAR/SPECI code in BUFR)*Deprecated see 3 07 045</i>
3	07	012	<i>(D_vVVVV)</i>
D	07	012	<i>(D_vVVVV)</i>
3	07	013	<i>(D_RD_RV_RV_RV_RV_R)</i>
D	07	013	<i>(D_RD_RV_RV_RV_RV_R)</i>
3	07	014	<i>(w'w')</i>
D	07	014	<i>(w'w')</i>
3	07	015	<i>(Clouds group(s))</i>
D	07	015	<i>(Clouds group(s))</i>
3	07	016	<i>(REw'w')</i>
D	07	016	<i>(REw'w')</i>
3	07	017	<i>(Wind shear on runways(s))</i>
D	07	017	<i>(Wind shear on runways(s))</i>
3	07	018	<i>(Trend-type landing forecast)*Deprecated, see 3 07 048</i>
D	07	018	<i>(Trend-type landing forecast)*Deprecated, see D 07 048</i>
3	07	020	<i>(Short METAR/SPECI)</i>
3	07	021	<i>(Total sequence for representation of METAR/SPECI code in BUFR)*Deprecated, see 3 07 59</i>
3	07	022	<i>(Ground-based Global Navigation Satellite System (GNSS) data)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
D	07	030	<i>(Ozone data - single observation)</i>
D	07	031	<i>(Ozone data - averaged observations)</i>
D	07	041	<i>(Total ozone measurement from a Brewer ground-based spectrophotometer obtained from a single observation)</i>
D	07	042	<i>(Total ozone measurement from a Brewer ground-based spectrophotometer obtained from averaged observations)</i>
D	07	043	<i>(Total ozone measurement from a Dobson ground-based spectrophotometer obtained from a single observation)</i>
D	07	044	<i>(Total ozone measurement from a Dobson ground-based spectrophotometer obtained from averaged observations)</i>
3	07	045	<i>(PRE) (Main part of METAR/SPECI), replacing 3 07 011</i>
3	07	046	<i>(PRE) (METAR/SPECI visibility)</i>
3	07	047	<i>(PRE) (METAR/SPECI/TAF clouds)</i>
3	07	048	<i>(PRE) (Trend type forecast), replacing 3 07 018</i>
D	07	048	<i>(PRE) (Trend type forecast), replacing D 07 018</i>
3	07	049	<i>(PRE) (Sea conditions WT_sT_sSS')</i>
3	07	050	<i>(PRE) (Runway state R_RR_RE_RE_RC_Re_Re_RB_RB_R)</i>
3	07	051	<i>(PRE) (Full METAR/SPECI), Replacing 3 07 021</i>
3	07	052	<i>(PRE) (Aerodrome forecast identification and time interval)</i>
3	07	053	<i>(PRE) (Forecast weather at an aerodrome)</i>
3	07	054	<i>(PRE) (Forecast of extreme temperatures)</i>
3	07	055	<i>(PRE) (Change indicator and forecast changes)</i>
3	07	056	<i>(PRE) (Aerodrome forecast)</i>
D	07	060	<i>(Soil temperature below land surface)</i>
D	07	061	<i>(Soil temperature data at number of depths not exceeding five, high accuracy position)</i>
D	07	062	<i>(Soil temperature data at number of depths not exceeding five, coarse accuracy position)</i>
D	07	063	<i>(Soil temperature data with scale of 2 below land surface)</i>
3	07	071	<i>(Monthly values from a land station)</i>
3	07	072	<i>(Monthly normals from a land station)</i>
3	07	073	<i>(Sequence for representation of monthly values suitable for CLIMAT data)</i>
3	07	079	<i>(VAL) (Synoptic reports from a fixed land station suitable for SYNOP data and for maritime data from coastal stations)</i>
3	07	080	<i>(Synoptic reports from a fixed land station suitable for SYNOP data)</i>
3	07	081	<i>(Synoptic reports from fixed land stations suitable for SYNOP data in compliance with reporting practices in RA I)</i>
3	07	082	<i>(Synoptic reports from fixed land stations suitable for SYNOP data in compliance with reporting practices in RA II)</i>
3	07	083	<i>(Synoptic reports from fixed land stations suitable for SYNOP data in compliance with reporting practices in RA III)</i>
3	07	084	<i>(Synoptic reports from fixed land stations suitable for SYNOP data in compliance with reporting practices in RA IV)</i>
3	07	086	<i>(Synoptic reports from fixed land stations suitable for SYNOP data in compliance with reporting practices in RA VI)</i>
D	07	087	<i>(PRE) ("Instantaneous" parameters of sequence D07089)</i>
D	07	088	<i>(PRE) ("Period" parameters of sequence D07089)</i>
D	07	089	<i>(PRE) (Sequence for representation of synoptic reports from a fixed land station suitable for SYNOP data manually encoded in CREX)</i>
3	07	090	<i>(Synoptic reports from a mobile land station suitable for SYNOP MOBIL data)</i>
3	07	091	<i>(PRE) (BUFR template for surface observations from one-hour period with national and WMO station identification)</i>
3	07	092	<i>(VAL) (BUFR template for surface observations from n-minute period with national and WMO station identification)</i>
3	07	093	<i>(VAL) (Nominal values)</i>
3	07	096	<i>(VAL) (Sequence for representation of SYNOP data with supplementary information on one-hour observations)</i>

Category 08 - Surface report sequences (sea)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	08	001	<i>(Buoy/platform — fixed)</i>
3	08	002	<i>(Buoy/platform — fixed)</i>
3	08	003	<i>(Buoy/platform — moving)</i>
3	08	004	<i>(Ship)</i>
3	08	005	
3	08	006	<i>(Buoy Section 1 optional parameters)</i>
3	08	007	
3	08	008	<i>(VAL) (Report from a buoy observation)</i>
3	08	009	<i>(Synoptic report from a sea station suitable for SHIP data)</i>
3	08	010	<i>(TRACKOB data)</i>
D	08	010	<i>(TRACKOB data)</i>
3	08	011	<i>(Monthly values from an ocean weather station)</i>
3	08	012	<i>(Monthly normals from an ocean weather station)</i>
3	08	013	<i>(Sequence for representation of monthly values suitable for CLIMAT SHIP data)</i>
3	08	014	<i>(VAL) (Synoptic report from a sea station suitable for SHIP observation data from VOS station)</i>
3	08	015	<i>(VAL) (Template for WAVEOB data expressed as frequency ($I_a=0$ in FM-65 WAVEOB))</i>
3	08	016	<i>(VAL) (BUFR template for WAVEOB data expressed as the wave number ($I_a=1$ in FM-65 WAVEOB))</i>

Category 09 - Vertical sounding sequences (conventional data)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	09	001	<i>(Vertical wind profile)</i>
D	09	001	<i>(Vertical wind profile)</i>
3	09	002	<i>(Vertical wind profile)</i>
D	09	002	<i>(Vertical wind profile)</i>
3	09	003	<i>(Vertical wind profile)</i>
D	09	003	<i>(Vertical wind profile)</i>
3	09	004	<i>(Vertical wind profile)</i>
D	09	004	<i>(Vertical wind profile)</i>
3	09	005	<i>(Vertical sounding with relative humidity)</i>
D	09	005	<i>(Vertical sounding with relative humidity)</i>
3	09	006	<i>(Vertical sounding with relative humidity)</i>
D	09	006	<i>(Vertical sounding with relative humidity)</i>
3	09	007	<i>(Vertical sounding with dew-point data)</i>
D	09	007	<i>(Vertical sounding with dew-point data)</i>
3	09	008	<i>(Vertical sounding with dew-point data)</i>
D	09	008	<i>(Vertical sounding with dew-point data)</i>
3	09	011	<i>(Vertical wind profile)</i>
D	09	011	<i>(Vertical wind profile)</i>
3	09	012	<i>(Vertical wind profile)</i>
D	09	012	<i>(Vertical wind profile)</i>
3	09	013	<i>(Vertical sounding with relative humidity)</i>
D	09	013	<i>(Vertical sounding with relative humidity)</i>
3	09	014	<i>(Vertical sounding with dew-point data)</i>
D	09	014	<i>(Vertical sounding with dew-point data)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	09	015	<i>(Vertical wind profile)</i>
D	09	015	<i>(Vertical wind profile)</i>
3	09	016	<i>(Vertical wind profile)</i>
D	09	016	<i>(Vertical wind profile)</i>
3	09	017	<i>(Vertical sounding with relative humidity)</i>
D	09	017	<i>(Vertical sounding with relative humidity)</i>
3	09	018	<i>(Vertical sounding with dew-point data)</i>
D	09	018	<i>(Vertical sounding with dew-point data)</i>
3	09	019	<i>(Wind profiler — wind data sounding)</i>
D	09	019	<i>(Wind profiler — wind data sounding)</i>
3	09	020	<i>(Wind profiler — Cartesian coordinates)</i>
D	09	020	<i>(Wind profiler — Cartesian coordinates)</i>
3	09	030	<i>(Ozone sonde flight data)</i> – Deprecated, use 3 09 031
D	09	030	<i>(Ozone sonde flight data)</i> – Deprecated, use D 09 031
3	09	031	<i>(Ozone sonde flight data)</i>
D	09	031	<i>(Ozone sonde flight data)</i>
D	09	040	<i>(Ozone sounding not coupled to a ground-based spectrophotometer)</i> – Deprecated, use 3 09 045
D	09	041	<i>(Ozone sounding coupled to measurements from a Brewer ground-based spectrophotometer; the total ozone obtained from the Brewer is a single value)</i> – Deprecated, use 3 09 046
D	09	042	<i>(Ozone sounding coupled to measurements from a Brewer ground-based spectrophotometer; the total ozone obtained from the Brewer is an averaged value)</i> – Deprecated, use 3 09 047
D	09	043	<i>(Ozone sounding coupled to measurements from a Dobson ground-based spectrophotometer; the total ozone obtained from the Dobson is a single value)</i> – Deprecated, use 3 09 048
D	09	044	<i>(Ozone sounding coupled to measurements from a Dobson ground-based spectrophotometer; the total ozone obtained from the Dobson is an averaged value)</i> – Deprecated, use 3 09 049
D	09	045	<i>(Ozone sounding not coupled to a ground-based spectrophotometer)</i>
D	09	046	<i>(Ozone sounding coupled to measurements from a Brewer ground-based spectrophotometer; the total ozone obtained from the Brewer is a single value)</i>
D	09	047	<i>(Ozone sounding coupled to measurements from a Brewer ground-based spectrophotometer; the total ozone obtained from the Brewer is an averaged value)</i>
D	09	048	<i>(Ozone sounding coupled to measurements from a Dobson ground-based spectrophotometer; the total ozone obtained from the Dobson is a single value)</i>
D	09	049	<i>(Ozone sounding coupled to measurements from a Dobson ground-based spectrophotometer; the total ozone obtained from the Dobson is an averaged value)</i>
3	09	050	<i>(Sequence for representation of PILOT, PILOT SHIP and PILOT MOBIL observation type data with pressure as the vertical coordinate)</i>
3	09	051	<i>(Sequence for representation of PILOT, PILOT SHIP and PILOT MOBIL observation type data with height as the vertical coordinate)</i>
3	09	052	<i>(Sequence for representation of TEMP, TEMP SHIP and TEMP MOBIL observation type data)</i>
3	09	053	<i>(Sequence for representation of TEMP DROP observation type data)</i>
3	09	054	<i>(Sequence for representation of CLIMAT TEMP and CLIMAT TEMP SHIP data)</i>
3	09	060	<i>(Radiosonde complete registration and surface observation)</i>
3	09	061	<i>(Raw PTU)</i>
3	09	062	<i>(Raw GPS unsmoothed wind)</i>
3	09	063	<i>(Raw GPS smoothed wind)</i>
3	09	064	<i>(Processed PTU)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	09	065	<i>(Processed GPS)</i>
3	09	066	<i>(Standard and significant levels)</i>

Category 10 - Vertical sounding sequences (satellite data)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	10	001	<i>(Satellite — brightness temperature)</i>
3	10	002	<i>(Satellite — low level)</i>
3	10	003	<i>(Satellite — high level)</i>
3	10	004	<i>(Satellite — precipitable water)</i>
3	10	005	
3	10	006	
3	10	007	
3	10	008	<i>(ATOVS HIRS report)</i>
3	10	009	<i>(ATOVS AMSU-A report)</i>
3	10	010	<i>(ATOVS AMSU-B / MHS report)</i>
3	10	011	<i>(ATOVS field of view variables)</i>
3	10	012	<i>(ATOVS channel variables)</i>
3	10	013	<i>(AVHRR (GAC) report)</i>
3	10	014	<i>(Satellite — geostationary wind data)</i>
3	10	015	<i>(Meteosat radiance data)</i>
3	10	016	<i>(Meteosat Second Generation (MSG) radiance data)</i>
3	10	018	<i>(PRE) (GOME Ozone data)</i>
3	10	019	<i>(PRE) (SBUV 2 Ozone data)</i>
3	10	020	<i>(Retrieved ozone data)</i>
3	10	021	
3	10	022	
3	10	023	<i>(Geostationary multi-channel satellite radiance data)</i>
3	10	024	<i>(Geostationary three-channel satellite radiance data)</i>
3	10	025	<i>(SSMIS temperature data record)</i>
3	10	026	<i>(Satellite radio occultation data)</i>
3	10	027	<i>(PRE) (All sky radiance product main sequence)</i>
3	10	029	<i>(MIPAS data: Layer, ozone, height, temperature and water vapour)</i>
3	10	030	<i>(MIPAS information)</i>
3	10	050	<i>(Satellite collocated IC reports with 3 instruments)</i>
3	10	051	<i>(Satellite position and instrument temperatures)</i>
3	10	052	<i>(Satellite instrument type and position)</i>
3	10	053	<i>(Satellite channels and brightness temperatures with expanded channel set)</i>
3	10	054	<i>(Satellite visible channels and albedos with expanded channel set)</i>
3	10	055	<i>(Satellite radiance/channel principle components)</i>

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Category 11 - Single level report sequences (conventional data)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	11	001	<i>(Aircraft reports)</i>
3	11	002	<i>(ACARS reports)</i>
3	11	003	<i>(ACARS standard reported variables)</i>
3	11	004	<i>(ACARS supplementary reported variables)</i>
D	11	004	<i>(ACARS supplementary reported variables)</i>
3	11	005	<i>(Standard AMDAR report)</i>
D	11	005	<i>(Standard AMDAR report)</i>
3	11	006	<i>(AMDAR sounding data for one level without lat. long.)</i>
D	11	006	<i>(AMDAR sounding data for one level without lat. long.)</i>
3	11	007	<i>(Aircraft ascent/descent profile data for one level with lat., long. Indicated)</i>
D	11	007	<i>(Aircraft ascent/descent profile data for one level with lat., long. Indicated)</i>
3	11	008	<i>(Aircraft ascent/descent profile data without lat. long at levels)</i>
D	11	008	<i>(Aircraft ascent/descent profile data without lat. long at levels)</i>
3	11	009	<i>(Aircraft ascent/descent profile with lat. long given for each level) - suitable for AMDAR</i>
D	11	009	<i>(Aircraft ascent/descent profile with lat. long given for each level) - suitable for AMDAR</i>

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Category 12 - Single level report sequences (satellite data)

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	12	001	
3	12	002	
3	12	003	
3	12	004	
3	12	005	
3	12	006	
3	12	007	
3	12	010	<i>(Orbital information, Part I)</i>
3	12	011	<i>(Orbital information, Part II)</i>
3	12	012	<i>(HIRS brightness temperatures — channels 1–19)</i>
3	12	013	<i>(HIRS brightness temperatures — channel 20)</i>
3	12	014	<i>(HIRS satellite data)</i>
3	12	015	<i>(MSU brightness temperatures — channels 1–4)</i>
3	12	016	<i>(MSU satellite data)</i>
3	12	017	<i>(SSU brightness temperatures — channels 1–3)</i>
3	12	018	<i>(SSU satellite data)</i>
3	12	019	<i>(Wave scatterometer product with width change for wave number (spectral))</i>
3	12	020	<i>(Wave scatterometer product)</i>
3	12	021	<i>(Wind scatterometer product)</i>
3	12	022	<i>(Radar altimeter product)</i>
3	12	023	<i>(ATSR sea surface temperature product)</i>
3	12	024	<i>(Wave scatterometer product enhanced)</i>
3	12	025	<i>(Wave scatterometer enhanced product (with change of width for wave number (spectral))</i>
3	12	026	<i>(QUIKSCAT data)</i>
3	12	027	<i>(ATSR SST Product (SADIST-2))</i>
3	12	028	<i>(SEAWINDS QUIKSCAT data)</i>
3	12	030	
3	12	031	
3	12	032	
3	12	033	
3	12	041	<i>(Altitude)</i>
3	12	042	<i>(Altitude corrections)</i>
3	12	045	<i>(AATSR sea surface temperature)</i>
3	12	050	<i>(MERIS information)</i>
3	12	051	<i>(ASAR - Ocean cross spectra - WVS)</i>
3	12	052	<i>(RA2 - Radar Altimeter-2)</i>
3	12	053	<i>(Ocean wave spectra)</i>
3	12	055	<i>(ASCAT level 1b cell information)</i>
3	12	056	<i>(Scatterometer wind cell information)</i>
3	12	057	<i>(Ambiguous wind data)</i>
3	12	058	<i>(ASCAT level 1b data)</i>
3	12	059	<i>(Scatterometer wind data)</i>
3	12	060	<i>(Scatterometer soil moisture data)</i>
3	12	061	<i>(ASCAT Level 1b and level 2 data)</i>
3	12	070	<i>(VAL) (SMOS Data)</i>

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Category 13 - Sequences common to image data

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	13	009	<i>(Radar reflectivity values)</i>
3	13	010	<i>(Radar rainfall intensities)</i>
3	13	031	<i>(Non run-length encoded row for Pixel value (4 bits))</i>
3	13	032	<i>(Non run-length encoded picture data for Pixel value (4 bits))</i>
3	13	041	<i>(Run-length encoded row for Pixel value (4 bits))</i>
3	13	042	<i>(Run-length encoded picture data for Pixel value (4 bits))</i>
3	13	043	<i>(Run-length encoded picture data for Pixel value (4 bits), regular grid)</i>

Category 15 - Oceanographic report sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	15	001	<i>(Typically reported underwater sounding without optional fields)</i>
3	15	002	<i>(Typically reported underwater sounding without optional fields)</i>
3	15	003	<i>(Temperature and salinity profile observed by profile floats)</i>
3	15	004	<i>(VAL) (Water Temperature Profile observed by XBT or Buoy)</i>

Category 16 - Synoptic feature sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	16	001	
3	16	002	<i>(Header)</i>
3	16	003	<i>(Jet stream)</i>
D	16	003	<i>(Jet stream)</i>
3	16	004	<i>(Turbulence)</i>
D	16	004	<i>(Turbulence)</i>
3	16	005	<i>(Storm)</i>
D	16	005	<i>(Storm)</i>
3	16	006	<i>(Cloud)</i>
D	16	006	<i>(Cloud)</i>
3	16	007	<i>(Front)</i>
D	16	007	<i>(Front)</i>
3	16	008	<i>(Tropopause)</i>
D	16	008	<i>(Tropopause)</i>
3	16	009	<i>(Airframe icing area)</i>
D	16	009	<i>(Airframe icing area)</i>
3	16	010	<i>(Name of feature)</i>
D	16	010	<i>(Name of feature)</i>
3	16	011	<i>(Volcano erupting)</i>
D	16	011	<i>(Volcano erupting)</i>
D	16	020	<i>(Tropical storm identification)</i>
D	16	021	<i>(Analysis data)</i>
3	16	022	<i>(Forecast data)</i>
D	16	026	<i>(Tropical storm analysis information)</i>
D	16	027	<i>(Tropical storm forecast information)</i>
3	16	030	<i>(SIGMET header)</i>
3	16	031	<i>(SIGMET, Observation or forecast, location and motion)</i>
3	16	032	<i>(SIGMET, Forecast position)</i>
3	16	033	<i>(SIGMET, Outlook)</i>
3	16	034	<i>(Volcanic ash SIGMET)</i>
3	16	035	<i>(Thunderstorm SIGMET)</i>
3	16	036	<i>(Tropical Cyclone SIGMET)</i>

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TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	16	037	<i>(Turbulence SIGMET)</i>
3	16	038	<i>(Icing SIGMET)</i>
3	16	039	<i>(Mountain Wave, Duststorm or Sandstorm SIGMET)</i>
3	16	040	<i>(Cancellation of SIGMET)</i>
3	16	050	<i>(RADOB (part A: Information on tropical cyclone)</i>
3	16	052	<i>(SAREP (part A: Information on tropical cyclone)</i>
D	16	052	<i>(SAREP (part A: Information on tropical cyclone)</i>
D	16	60	<i>(Squall lines observations (3 points) and forecasted trajectory and evolution)</i>
D	16	61	<i>(Squall lines observations (more than 3 points) and forecasted trajectory and evolution)</i>
3	16	071	(PRE) <i>(Graphical AIRMET Sierra)</i>
3	16	072	(PRE) <i>(Graphical AIRMET Tango)</i>
3	16	073	(PRE) <i>(Graphical AIRMET Zulu)</i>
3	16	074	(PRE) <i>(GFA Identifier and Observed/Forecast Location)</i>
3	16	075	(PRE) <i>(GFA IFR Ceiling and Visibility)</i>
3	16	076	(PRE) <i>(GFA Mountain Obscuration)</i>
3	16	077	(PRE) <i>(GFA Turbulence)</i>
3	16	078	(PRE) <i>(GFA Strong Surface Wind)</i>
3	16	079	(PRE) <i>(GFA Low-Level Wind Shear)</i>
3	16	080	(PRE) <i>(GFA Icing)</i>
3	16	081	(PRE) <i>(GFA Freezing Level)</i>

Category 18 - Radiological report sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	18	001	
3	18	003	
3	18	004	

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Category 21 - Radar report sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	21	001	<i>(Wind profiler — antenna characteristics)</i>
3	21	003	<i>(Wind profiler — moment data)</i>
3	21	004	<i>(Wind profiler — moment data sounding)</i>
3	21	005	<i>(Transmitter-receiver characteristics)</i>
3	21	006	<i>(Integration characteristics)</i>
3	21	007	<i>(Corrections)</i>
3	21	008	<i>(Z to R conversion)</i>
3	21	009	<i>(A to Z law)</i>
3	21	010	<i>(Antenna characteristics)</i>
3	21	011	<i>(General characteristics)</i>
3	21	012	<i>(Antenna elevations)</i>
3	21	021	<i>(Basic information (System/site header) on Wind profiler/RASS)</i>
3	21	022	<i>(Wind profiler: Processed-data winds)</i>
3	21	023	<i>Wind profiler: Raw-data winds)</i>
3	21	024	<i>(RASS-Mode: Processed-data RASS)</i>
3	21	025	<i>(RASS-Mode: Raw-data RASS)</i>
3	21	026	<i>(RASS data - fluxes)</i>
3	21	027	
3	21	028	
3	21	030	<i>(ASCAT sigma-0 information)</i>

Category 22 - Chemical and Aerosol sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	22	028	<i>(PRE) (METOP GOME-2 Template)</i>

Category 35 - Monitoring information

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
D	35	001	<i>(Specify monitoring station)</i>
D	35	002	<i>(Specify monitoring Centre)</i>
D	35	003	<i>(Specify monitoring period)</i>
D	35	004	<i>(Specify report type and single station being monitored)</i>
D	35	005	<i>(Specify report type and WMO block being monitored)</i>
D	35	006	<i>(Specify report type and WMO Region being monitored)</i>
D	35	007	<i>(Report type and multiple stations from one block being monitored)</i>
D	35	010	<i>(Monitoring a report type from multiple stations)</i>

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Category 40 – Additional satellite report sequences

TABLE REFERENCE			ELEMENT NAME
F	X	Y	
3	40	001	<i>(IASI Level 1c data)</i>
3	40	002	<i>(IASI Level 1c band description)</i>
3	40	003	<i>(IASI Level 1c 100 channel)</i>
3	40	004	<i>(IASI Level 1c AVHRR single scene)</i>
3	40	005	<i>(PRE) (JASON 2 OGDR data)</i>
3	40	006	<i>(VAL) (IASI principal component scores)</i>
3	40	007	<i>(VAL) (IASI Level 1c data (all channels))</i>
3	40	008	<i>(VAL) (IASI Level 1c data (subset of channels))</i>