

Analysis and technical functional modelling for the improvement of the vessel traffic management in the Adriatic Region

4.1.c_4.1.d_ Annex 1

Data mapping of the traffic monitoring systems in the Adriatic maritime traffic area and definition unique data mapping

Version 1.1



Easyconnecting Project code 1 str./0002
This Project is co-funded by the European Union,
Instrument for Pre-Accession Assistance

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
1 - 2 - 3.	Position Report	Message ID	Identifier for this Message 1, 2 or 3	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated.	1-n	ENUM	2
		User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30
		Navigational status	0 = under way using engine, 1 = at anchor, 2 = not under command, 3 = restricted maneuverability, 4 = constrained by her draught, 5 = moored, 6 = aground, 7 = engaged in fishing, 8 = under way sailing, 9 = reserved for future amendment of navigational status for ships carrying DG, HS, or MP, or IMO hazard or pollutant category C, high speed craft (HSC), 10 = reserved for future amendment of navigational status for ships carrying dangerous goods (DG), harmful substances (HS) or marine pollutants (MP), or IMO hazard or pollutant category A, wing in ground (WIG); 11 = power-driven vessel towing astern (regional use), 12 = power-driven vessel pushing ahead or towing alongside (regional use); 13 = reserved for future use, 14 = AIS-SART (active), MOB-AIS, EPIRB-AIS; 15 = undefined = default (also used by AIS-SART, MOB-AIS and EPIRB-AIS under test)	1-n	ENUM	4
		Rate of turn ROT AIS	0 to +126 = turning right at up to 708° per min or higher 0 to -126 = turning left at up to 708° per min or higher Values between 0 and 708° per min coded by ROT AIS = 4.733 SQRT(ROTsensor) degrees per min where ROTsensor is the Rate of Turn as input by an external Rate of Turn Indicator (TI). ROT AIS is rounded to the nearest integer value. +127 = turning right at more than 5° per 30 s (No TI available) -127 = turning left at more than 5° per 30 s (No TI available) -128 (80 hex) indicates no turn information available (default). ROT data should not be derived from COG information	1-n	ENUM	8
		SOG	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10
		Position accuracy	1 = high (<= 10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		Longitude	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement). 181 = (6791AC0h) = not available = default)	1-n	Number	28
		Latitude	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement). 91° (3412140h) = not available = default)	1-n	Number	27
		COG	Course over ground in 1/10 = (0-3 599). 3 600 (E10h) = not available = default. 3 601-4 095 should not be used	1-n	Number	12
		True heading	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9
		Time stamp	UTC second when the report was generated by the electronic position system (EPFS) (0-59, or 60 if time stamp is not available, which should also be the default value, or 61 if positioning system is in manual input mode, or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6
		Special manoeuvre indicator	0 = not available = default 1 = not engaged in special manoeuvre 2 = engaged in special manoeuvre (i.e. regional passing arrangement on Inland Waterway)	1-n	ENUM	2
		Spare	Not used. Should be set to zero. Reserved for future use.	1-n	varchar2	3
		RAIM-flag	Receiver autonomous integrity monitoring (RAIM) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Communication state	SOTDMA communication state ITDMA communication state	1-n	ENUM	19
		Number of bits		1-n	Number	168
		Message ID	Identifier for this Message 4 or 11 4 = UTC and position report from base station: 11 = UTC and position response from mobile station	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30
		UTC year	1-9999; 0 = UTC year not available = default	1-n	Number	14
		UTC month	1-12; 0 = UTC month not available = default; 13-15 not used	1-n	Number	4
		UTC day	1-31; 0 = UTC day not available = default	1-n	Number	5
		UTC hour	0-23; 24 = UTC hour not available = default; 25-31 not used	1-n	Number	5
		UTC minute	0-59; 60 = UTC minute not available = default; 61-63 not used	1-n	Number	6

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
4.	Base station Report	UTC second	0-59; 60 = UTC second not available = default; 61-63 not used	1-n	Number	6
		Position accuracy	1 = high (<= 10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		Longitude	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181 = (6791AC0h) = not available = default)	1-n	Number	28
		Latitude	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27
		Type of electronic position fixing device	Use of differential corrections is defined by field position accuracy above: 0 = undefined (default) 1 = global positioning system (GPS) 2 = GNSS (GLONASS) 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4
		Transmission control for long-range broadcast message	0 = default – Class-A AIS station stops transmission of Message 27 within an AIS base station coverage area. 1 = Request Class-A station to transmit Message 27 within an AIS base station coverage area. Base station coverage area should be defined by Message 23; If Message 23 is not received, the AIS station which is allowed to transmit on CH75 and 76 should ignore this bit and transmit Message 27.	1-n	boolean	1
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	9
		RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Communication state	SOTDMA communication state	1-n	ENUM	19
			Number of bits		1-n	Number
5.	Ship static and voyage related data	Message ID	Identifier for this Message 5	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30
		AIS version indicator	0 = station compliant with Recommendation ITU-R M.1371-1 1 = station compliant with Recommendation ITU-R M.1371-3 (or later) 2 = station compliant with Recommendation ITU-R M.1371-5 (or later) 3 = station compliant with future editions	1	ENUM	2
		IMO number	0 = not available = default – Not applicable to SAR aircraft 000000001-000999999 not used 0001000000-000999999 = valid IMO number; 0010000000-1073741823 = official flag state number	1	varch2	30
		Call sign	Craft associated with a parent vessel, should use "A" followed by the last 6 digits of the MMSI of the parent vessel. Examples of these craft include towed vessels, rescue boats, tenders, lifeboats and liferafts.	1-n	varch2	42
		Name	The Name should be as shown on the station radio license.	1-n	varch2	120
		Type of ship and cargo type	0 = not available or no ship = default 1-99 = defined 100-199 = reserved, for regional use 200-255 = reserved, for future use Not applicable to SAR aircraft	1-n	ENUM	8
Overall dimension/ reference for position	Reference point for reported position. Also indicates the dimension of ship (m). For SAR aircraft, the use of this field may be decided by the responsible administration. If used it should indicate the maximum dimensions of the craft. As default should A = B = C = D be set to "0"	1	Number	30		

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
		Type of electronic position fixing device	0 = undefined (default) 1 = GPS 2 = GLONASS 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo, 9-14 = not used 15 = internal GNSS	1-n	ENUM	4
		ETA	Estimated time of arrival; MMDDHHMM UTC Bits 19-16: month; 1-12; 0 = not available = default Bits 15-11: day; 1-31; 0 = not available = default Bits 10-6: hour; 0-23; 24 = not available = default Bits 5-0: minute; 0-59; 60 = not available = default	1	date-time	20
		Maximum present static draught	In 1/10 m, 255 = draught 25.5 m or greater, 0 = not available = default; in accordance with IMO Resolution A.851 Not applicable to SAR aircraft, should be set to 0	1	Number	8
		Destination	Maximum 20 characters using 6-bit ASCII; For SAR aircraft, the use of this field may be decided by the responsible administration	1	varch2	120
		DTE	Data terminal equipment (DTE) ready (0 = available, 1 = not available = default)	1-n	date	1
		Spare	Spare. Not used. Should be set to zero. Reserved for future use	1-n	varch2	1
		Number of bits		1-n	Number	424
			Addressed binary message	Message ID	Identifier for Message 6; always 6	1-n
Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more			1-n	ENUM	2
Source ID	MMSI number of source station			1-n	Number	30
Sequence number	0 - 3			1-n	ENUM	2
Destination ID	MMSI number of destination station			1-n	Number	30
Retransmit flag	Retransmit flag should be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted			1-n	boolean	1
Spare	Not used. Should be zero. Reserved for future use			1-n	varch2	1
Binary data	Application identifier - Application data - Application specific data			1-n	ENUM	max 936
Maximum number of bits				1-n	Number	max 1008
	Binary acknowledge	Message ID	Identifier for Messages 7 or 13 7 = binary acknowledge 13 = safety related acknowledge	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of source of this acknowledge (ACK)	1-n	Number	30
		Spare	Not used. Should be zero. Reserved for future use	1-n	varch2	2
		Destination ID1	MMSI number of first destination of this ACK	1-n	Number	30
		Sequence number for ID1	Sequence number of message to be acknowledged; 0-3	1-n	ENUM	2
		Destination ID2	MMSI number of second destination of this ACK; should be omitted if no destination ID2	0-n	Number	30
		Sequence number for ID2	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID2	0-n	ENUM	2
		Destination ID3	MMSI number of third destination of this ACK; should be omitted if no destination ID3	0-n	Number	30
		Sequence number for ID3	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID3	0-n	ENUM	2
		Destination ID4	MMSI number of fourth destination of this ACK; should be omitted if no destination ID4	0-n	Number	30
		Sequence number for ID4	Sequence number of message to be acknowledged; 0-3. Should be omitted if there is no destination ID4	0-n	ENUM	2
		Number of bits		1-n	Number	72 - 168
	Binary broadcast message	Message ID	Identifier for Message 8; always 8	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of source station	1-n	Number	30
		Spare	Not used. Should be zero. Reserved for future use	1-n	varch2	2

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
		Binary data	Application identifier - Application data - Application specific data	1-n	ENUM	max 968
		Maximum number of bits		1-n	Number	max 1008
9.	Standard search and rescue aircraft position report	Message ID	Identifier for Message 9; always 9	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30
		Altitude (GNSS)	Altitude (derived from GNSS or barometric (see altitude sensor parameter below)) (m) (0-4 094 m) 4 095 = not available, 4 094 = 4 094 m or higher	1	Number	12
		SOG	Speed over ground in knot steps (0-1 022 knots) 1 023 = not available, 1 022 = 1 022 knots or higher	1-n	Number	10
		Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		Longitude	Longitude in 1/10 000 min (1/180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181 = (6791AC0h) = not available = default)	1-n	Number	28
		Latitude	Latitude in 1/10 000 min (1/90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27
		COG	Course over ground in 1/10 = (0-3 599). 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12
		Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60 if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative)	1-n	ENUM	6
		Altitude sensor	0 = GNSS 1 = barometric source	1	ENUM	1
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varchar2	7
		DTE	Data terminal ready (0 = available 1 = not available = default)	1-n	date	1
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varchar2	3
		Assigned mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1
		RAIM-flag	RAIM flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows	1-n	ENUM	1
		Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1	1-n	ENUM	19
		Number of bits		1-n	Number	168
10.	Coordinated universal time and date inquiry	Message ID	Identifier for Message 10; always 10	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of station which inquires UTC	1-n	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varchar2	2
		Destination ID	MMSI number of station which is inquired	1-n	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varchar2	2
				Number of bits		1-n
		Message ID	Identifier for this Message 4 or 11 4 = UTC and position report from base station: 11 = UTC and position response from mobile station	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30
		UTC year	1-9999; 0 = UTC year not available = default	1-n	Number	14
		UTC month	1-12; 0 = UTC month not available = default; 13-15 not used	1-n	Number	4
		UTC day	1-31; 0 = UTC day not available = default	1-n	Number	5
		UTC hour	0-23; 24 = UTC hour not available = default; 25-31 not used	1-n	Number	5
		UTC minute	0-59; 60 = UTC minute not available = default; 61-63 not used	1-n	Number	6
		UTC second	0-59; 60 = UTC second not available = default; 61-63 not used	1-n	Number	6
		Position accuracy	1 = high (10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
11.	Coordinated universal time/date response	Longitude	Longitude in 1/10 000 min (1/180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181 = (6791AC0h) = not available = default)	1-n	Number	28
		Latitude	Latitude in 1/10 000 min (1/90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27
		Type of electronic position fixing device	Use of differential corrections is defined by field position accuracy above: 0 = undefined (default) 1 = global positioning system (GPS) 2 = GNSS (GLONASS) 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4
		Transmission control for long-range broadcast message	0 = default – Class-A AIS station stops transmission of Message 27 within an AIS base station coverage area. 1 = Request Class-A station to transmit Message 27 within an AIS base station coverage area. Base station coverage area should be defined by Message 23; If Message 23 is not received, the AIS station which is allowed to transmit on CH75 and 76 should ignore this bit and transmit Message 27.	1-n	ENUM	1
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varchar2	9
		RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Communication state	SOTDMA communication state	1-n	ENUM	19
		Number of bits		1-n	Number	168
12.	Addressed safety related message	Message ID	Identifier for Message 12; always 12	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of station which is the source of the message	1-n	Number	30
		Sequence number	is used by the originating application to sub-divide the text and by the recipient application to re-assemble the text	1-n	ENUM	2
		Destination ID	MMSI number of station which is the destination of the message	1-n	Number	30
		Retransmit flag	Retransmit flag should be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted	1-n	boolean	1
		Spare	Not used. Should be zero. Reserved for future use	1-n	varchar2	1
		Safety related text	6-bit ASCII	1-n	varchar2	max 936
Maximum number of bits		1-n	Number	max 1008		
13.	Safety related acknowledge	Message ID	Identifier for Messages 7 or 13 7 = binary acknowledge 13 = safety related acknowledge	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of source of this acknowledge (ACK)	1-n	Number	30
		Spare	Not used. Should be zero. Reserved for future use	1-n	varchar2	2
		Destination ID1	MMSI number of first destination of this ACK	1-n	Number	30
		Sequence number for ID1	Sequence number of message to be acknowledged; 0-3	1-n	ENUM	2
		Destination ID2	MMSI number of second destination of this ACK; should be omitted if no destination ID2	0-n	Number	30
		Sequence number for ID2	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID2	0-n	ENUM	2
		Destination ID3	MMSI number of third destination of this ACK; should be omitted if no destination ID3	0-n	Number	30
		Sequence number for ID3	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID3	0-n	ENUM	2
		Destination ID4	MMSI number of fourth destination of this ACK; should be omitted if no destination ID4	0-n	Number	30
		Sequence number for ID4	Sequence number of message to be acknowledged; 0-3. Should be omitted if there is no destination ID4	0-n	ENUM	2
Number of bits		1-n	Number	72 - 168		
14.	Safety related broadcast	Message ID	Identifier for Message 14; always 14	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of source station of message	1-n	Number	30

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
	message	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Safety related text	6-bit ASCII	1-n	varch2	max 968
		Maximum number of bits		1-n	Number	max 1008
15.	Interrogation	Message ID	Identifier for Message 15; always set to 15	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of interrogating station	1-n	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Destination ID1	MMSI number of first interrogated station	1-n	Number	30
		Message ID1.1	First requested message type from first interrogated station	1	varch2	6
		Slot offset 1.1	Response slot offset for first requested message from first interrogated station	1	Number	12
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Message ID1.2	Second requested message type from first interrogated station	1	varch2	6
		Slot offset 1.2	Response slot offset for second requested message from first interrogated station	1	Number	12
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Destination ID 2	MMSI number of second interrogated station	0-n	Number	30
		Message ID 2.1	Requested message type from second interrogated station	1	varch2	6
		Slot offset 2.1	Response slot offset for requested message from second interrogated station	1	Number	12
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Number of bits		1-n	Number	88 - 160
16.	Assigned mode command	Message ID	Identifier for Message 16. Always 16	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI of assigning station	1-n	Number	30
		Spare	Spare. Should be set to zero. Reserved for future use	1-n	varch2	2
		Destination ID A	MMSI number. Destination identifier A	1	Number	30
		Offset A	Offset from current slot to first assigned slot	1	Number	12
		Increment A	Increment to next assigned slot	1	Number	10
		Destination ID B	MMSI number. Destination identifier B. Should be omitted if there is assignment to station A, only	0-1	Number	30
		Offset B	Offset from current slot to first assigned slot. Should be omitted if there is assignment to station A, only	0-1	Number	12
		Increment B	Increment to next assigned slot(1). Should be omitted, if there is assignment to station A, only	0-1	Number	10
		Spare	Spare. Not used. Should be set to zero. The number of spare bits, which should be 0 or 4, should be adjusted in order to observe byte boundaries. Reserved for future use	1-n	varch2	max 4
				Number of bits		1-n
17.	Global navigation-satellite system broadcast binary message	Message ID	Identifier for Message 17; always 17	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI of the base station	1-n	Number	30
		Spare	Spare. Should be set to zero. Reserved for future use	1-n	varch2	2
		Longitude	Surveyed longitude of DGNSS reference station in 1/10 min (+/-180°, East = positive, West = negative). If interrogated and differential correction service not available, the longitude should be set to 181°	1-n	Number	18
		Latitude	Surveyed latitude of DGNSS reference station in 1/10 min (+/- 90°, North = positive, South = negative). If interrogated and differential correction service not available, the latitude should be set to 91°	1-n	Number	17
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	5
		Data	Differential correction data. If interrogated and differential correction service not available, the data field should remain empty (zero bits). This should be interpreted by the recipient as DGNSS data words set to zero	0-1	varch2	0-736
		Number of bits	80 bits: assumes N = 0; 816 bits: assumes N = 29 (maximum value)	1-n	Number	80-816
		Message type	Recommendation ITU-R M.823	0-1	ENUM	6
		Station ID	Recommendation ITU-R M.823 station identifier	0-1	Number	10
		Z count	Time value in 0.6 s (0-3 599.4)	0-1	Number	13
		Sequence number	Message sequence number (cyclic 0-7)	1-n	ENUM	3
N	Number of DGNSS data words following the two word header, up to a maximum of 29	0-1	Number	5		

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
		Health	Reference station health (specified in Recommendation ITU-R M.823)	0-1	ENUM	3
		DGNSS data word	DGNSS message data words excluding parity	0-1	varch2	N = 24
		Number of bits	Assuming N = 29 (the maximum value)	1-n	Number	736
18.	Standard class B equipment position report	Message ID	Identifier for Message 18; always 18	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat anymore; should be 0 for "CS" transmissions	1-n	ENUM	2
		User ID	MMSI number	1-n	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	8
		SOG	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10
		Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		Longitude	Longitude in 1/10 000 min (+/-180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28
		Latitude	Latitude in 1/10 000 min (+/- 90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27
		COG	Course over ground in 1/10= (0-3 599). 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12
		True heading	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9
		Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60 if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative) 61, 62, 63 are not used by "CS" AIS	1-n	ENUM	6
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Class B unit flag	0 = Class B SOTDMA unit 1 = Class B "CS" unit	1	ENUM	1
		Class B display flag	0 = No display available; not capable of displaying Message 12 and 14 1 = Equipped with integrated display displaying Message 12 and 14	1	boolean	1
		Class B DSC flag	0 = Not equipped with DSC function 1 = Equipped with DSC function (dedicated or time-shared)	1	boolean	1
		Class B band flag	0 = Capable of operating over the upper 525 kHz band of the marine band 1 = Capable of operating over the whole marine band (irrelevant if "Class B Message 22 flag" is 0)	1	boolean	1
		Class B Message 22 flag	0 = No frequency management via Message 22, operating on AIS 1, AIS 2 only 1 = Frequency management via Message 22	1	boolean	1
		Mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1	boolean	1
		RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows (always "1" for Class-B "CS")	1-n	ENUM	1
		Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1 Because Class B "CS" does not use any Communication State information, this field should be filled with the following value: 110000000000000110	1-n	ENUM	19
		Number of bits	Occupies one slot	1-n	Number	168
		Message ID	Identifier for Message 19; always 19	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI number	1-n	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	8
		SOG Provided by Message 18	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10
		Position accuracy Provided by Message 18	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		Longitude Provided by Message 18	Longitude in 1/10 000 min (+/- 180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28
		Latitude Provided by Message 18	Latitude in 1/10 000 min (+/- 90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27
		COG Provided by Message 18	Course over ground in 1/10 = (0-3 599). 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12
		True heading Provided by Message 18	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition				
				Occ.	Type	Length (bit)		
19.	Extended class B equipment position report	Time stamp Provided by Message 18	UTC second when the report was generated by the EPFS (0-59 or 60) if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6		
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	4		
		Name Provided by Message 24A	Maximum 20 characters 6-bit ASCII	1-n	varch2	120		
		Type of ship and cargo type Provided by Message 24B	0 = not available or no ship = default 1-99 = as defined in 100-199 = reserved, for regional use 200-255 = reserved, for future use	1-n	ENUM	8		
		Dimension of ship/reference for position Provided by Message 24B	Dimensions of ship in metres and reference point for reported position	1-n	Number	30		
		Type of electronic position fixing device Provided by Message 24B	0 = Undefined (default); 1 = GPS, 2 = GLONASS, 3 = combined GPS/GLONASS, 4 = Loran-C, 5 = Chayka, 6 = integrated navigation system, 7 = surveyed; 8 = Galileo, 9-14 = not used, 15 = internal GNSS	1-n	ENUM	4		
		RAIM-flag Provided by Message 18	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1		
		DTE Provided by Message 18 (Display Flag)	Data terminal ready (0 = available 1 = not available; = default)	1-n	date	1		
		Assigned mode flag Provided by Message 18 (Mode Flag)	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1		
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	4		
		Number of bits	Occupies two slots	1-n	Number	312		
		20.	Data link management message	Message ID	Identifier for Message 20; always 20	1-n	ENUM	6
				Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
Source station ID	MMSI number of base station			1	Number	30		
Spare	Not used. Should be set to zero. Reserved for future use			1-n	varch2	2		
Offset number 1	Reserved offset number; 0 = not available			1	Number	12		
Number of slots 1	Number of reserved consecutive slots: 1-15; 0 = not available			1	Number	4		
Time-out 1	Time-out value in minutes; 0 = not available			1	Number	3		
Increment 1	Increment to repeat reservation block 1; 0 = one reservation block per frame			1	Number	11		
Offset number 2	Reserved offset number (optional)			0-1	Number	12		
Number of slots 2	Number of reserved consecutive slots: 1-15; optional			0-1	Number	4		
Time-out 2	Time-out value in minutes (optional)			0-1	Number	3		
Increment 2	Increment to repeat reservation block 2 (optional)			0-1	Number	11		
Offset number 3	Reserved offset number (optional)			0-1	Number	12		
Number of slots 3	Number of reserved consecutive slots: 1-15; optional			0-1	Number	4		
Time-out 3	Time-out value in minutes (optional)			0-1	Number	3		
Increment 3	Increment to repeat reservation block 3 (optional)			0-1	Number	11		
Offset number 4	Reserved offset number (optional)			0-1	Number	12		
Number of slots 4	Number of reserved consecutive slots: 1-15; optional			0-1	Number	4		
Time-out 4	Time-out value in minutes (optional)			0-1	Number	3		
Increment 4	Increment to repeat reservation block 4 (optional)			0-1	Number	11		
Spare	Not used. Should be set to zero. The number of spare bits which may be 0, 2, 4 or 6 should be adjusted in order to observe byte boundaries. Reserved for future use	1-n	varch2	max 6				
Number of bits		1-n	Number	72-160				
		Message ID	Identifier for Message 21	1-n	ENUM	6		
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2		
		ID	MMSI number	1	Number	30		
		Type of aids-to-navigation	0 = not available = default; refer to appropriate definition set up by IALA	1	ENUM	5		
		Name of Aids-to-Navigation	Maximum 20 characters 6-bit ASCII, as defined "@@@@@@@@@@@@@@@@@@@" = not available = default. The name of the AtoN may be extended by the parameter "Name of Aid-to-Navigation Extension" below	1	varch2	120		
		Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1		
		Longitude	Longitude in 1/10 000 min of position of an AtoN (+/- 180°, East = positive, West = negative 181 = (6791AC0h) = not available = default)	1-n	Number	28		

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
21.	Aids-to-navigation report	Latitude	Latitude in 1/10 000 min of an AtoN (+/- 90°, North = positive, South = negative 91 = (3412140h) = not available = default)	1-n	Number	27
		Dimension/ reference for position	Reference point for reported position; also indicates the dimension of an AtoN (m), if relevant	1	Number	30
		Type of electronic position fixing device	0 = Undefined (default) 1 = GPS 2 = GLONASS 3 = Combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = Integrated Navigation System 7 = surveyed. For fixed AtoN and virtual AtoN, the charted position should be used. The accurate position enhances its function as a radar reference target 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4
		Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60) if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative)	1-n	ENUM	6
		Off-position indicator	For floating AtoN, only: 0 = on position; 1 =off position. NOTE 1 – This flag should only be considered valid by receiving station, if the AtoN is a floating aid, and if time stamp is equal to or below 59. For floating AtoN the guard zone parameters should be set on installation	1	boolean	1
		AtoN status	Reserved for the indication of the AtoN status 00000000 = default	1	ENUM	8
		RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Virtual AtoN flag	0 = default = real AtoN at indicated position; 1 = virtual AtoN, does not physically exist	1	boolean	1
		Assigned mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1
		Spare	Spare. Not used. Should be set to zero. Reserved for future use	1-n	varch2	1
		Name of Aid-to-Navigation Extension	This parameter of up to 14 additional 6-bit-ASCII characters for a 2-slot message may be combined with the parameter "Name of Aid-to-Navigation" at the end of that parameter, when more than 20 characters are needed for the name of the AtoN. This parameter should be omitted when no more than 20 characters for the name of the A-to-N are needed in total. Only the required number of characters should be transmitted, i.e. no @-character should be used	0-1	varch2	0, 6, 12, 18, 24, 30, 36, ... 84
		Spare	Spare. Used only when parameter "Name of Aid-to-Navigation Extension" is used. Should be set to zero. The number of spare bits should be adjusted in order to observe byte boundaries	1-n	varch2	0, 2, 4, or 6
		Number of bits	Occupies two slots	1-n	Number	272-360
22.	Channel management	Message ID	Identifier for Message 22; always 22	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		Station ID	MMSI number of Base station	1	Number	30
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2
		Channel A	Channel number of 25 kHz simplex or simplex use of 25 kHz duplex in accordance with Recommendation ITU-R M.1084.	1	Number	12
		Channel B	Channel number of 25 kHz simplex or simplex use of 25 kHz duplex in accordance with Recommendation ITU-R M.1084.	1	Number	12
		Tx/Rx mode	0 = Tx A/Tx B, Rx A/Rx B (default) 1 = Tx A, Rx A/Rx B 2 = Tx B, Rx A/Rx B 3-15: not used When the dual channel transmission is suspended by Tx/Rx mode command 1 or 2, the required reporting interval should be maintained using the remaining transmission channel	1-n	ENUM	4
		Power	0 = high (default), 1 = low	1	ENUM	1
		Longitude 1, (or 18 most significant bits (MSBs) of addressed station ID 1)	Longitude of area to which the assignment applies; upper right corner (North-East); in 1/10 min, or 18 MSBs of addressed station ID 1 (+/- 180°, East = positive, West = negative) 181 = not available	1	Number	18
		Latitude 1, (or 12 least significant bits (LSBs) of addressed station ID 1)	Latitude of area to which the assignment applies; upper right corner (North-East); in 1/10 min, or 12 LSBs of addressed station ID 1, followed by 5 zero bits (+/- 90°, North = positive, South = negative) 91° = not available	1	Number	17
		Longitude 2, (or 18 MSBs of addressed station ID 2)	Longitude of area to which the assignment applies; lower left corner (South-West); in 1/10 min, or 18 MSBs of addressed station ID 2 (+/- 180°, East = positive, West = negative)	1	Number	18
		Latitude 2, (or 12 LSBs of addressed station ID 2)	Latitude of area to which the assignment applies; lower left corner (South-West); in 1/10 min, or 12 LSBs of addressed station ID 2, followed by 5 zero bits (+/- 90°, North = positive, South = negative)	1	Number	17
		Addressed or broadcast message indicator	0 = broadcast geographical area message = default; 1 = addressed message (to individual station(s))	1	ENUM	1
		Channel A bandwidth	0 = default (as specified by channel number); 1 = spare (formerly 12.5 kHz bandwidth in Recommendation ITU-R M.1371-1 now obsolete)	1	boolean	1
		Channel B bandwidth	0 = default (as specified by channel number); 1 = spare (formerly 12.5 kHz bandwidth in Recommendation ITU-R M.1371-1 now obsolete)	1	boolean	1
		Transitional zone size	The transitional zone size in nautical miles should be calculated by adding 1 to this parameter value. The default parameter value should be 4, which translates to 5 nautical miles	1	Number	3
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	23
Number of bits		1-n	Number	168		
		Message ID	Identifier for Message 23; always 23	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI of assigning station	1-n	Number	30
		Spare	Spare. Should be set to zero	1-n	varch2	2

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
23.	Group assignment command	Longitude 1	Longitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (+/- 180°, East = positive, West = negative)	1	Number	18
		Latitude 1	Latitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (+/-90°, North = positive, South = negative)	1	Number	17
		Longitude 2	Longitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min (+/-180°, East = positive, West = negative)	1	Number	18
		Latitude 2	Latitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min (+/-90°, North = positive, South = negative)	1	Number	17
		Station type	0 = all types of mobiles (default); 1 = Class A mobile stations only; 2 = all types of Class B mobile stations; 3 = SAR airborne mobile station; 4 = Class B "SO" mobile stations only; 5 = Class B "CS" shipborne mobile station only; 6 = inland waterways; 7 to 9 = regional use; 10 = base station coverage area (see Message 4 and Message 27); 11 to 15 = for future use	1	ENUM	4
		Type of ship and cargo type	0 = all types (default) 1-99 as defined; 100-199 reserved for regional use; 200-255 reserved for future use	1-n	ENUM	8
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	22
		Tx/Rx mode	This parameter commands the respective stations to one of the following modes: 0 = TxA/TxB, RxA/RxB (default); 1 = TxA, RxA/RxB, 2 = TxB, RxA/RxB, 3 = reserved for future use	1-n	ENUM	2
		Reporting interval	This parameter commands the respective stations to the reporting interval	1	Number	4
		Quiet time	0 = default = no quiet time commanded; 1-15 = quiet time of 1 to 15 min	1	ENUM	4
		Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	6
				Number of bits	Occupies one-time period	1-n
24.	Static data report - Part A	Message ID	Identifier for Message 24; always 24	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI number	1-n	Number	30
		Part number	Identifier for the message part number; always 0 for Part A	1	ENUM	2
		Name	Name of the MMSI-registered vessel. Maximum 20 characters 6-bit ASCII, @@@@@" = not available = default. For SAR aircraft, it should be set to "SAR AIRCRAFT NNNNNN" where NNNNNN equals the aircraft registration number	1-n	varch2	120
		Number of bits	Occupies one-time period	1-n	Number	160
	Static data report - Part B	Message ID	Identifier for Message 24; always 24	1-n	ENUM	6
		Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2
		User ID	MMSI number	1-n	Number	30
		Part number	Identifier for the message part number; always 1 for Part B	1	ENUM	2
		Type of ship and cargo type	0 = not available or no ship = default 1-99 = as defined 100-199 = reserved, for regional use 200-255 = reserved, for future use. Not applicable to SAR aircraft	1-n	ENUM	8
		Vendor ID	Unique identification of the Unit by a number as defined by the manufacturer (option; "@@@" = not available = default)	1	Number	42
		Call sign	Call sign of the MMSI-registered vessel. 7 x 6 bit ASCII characters, "@@@" = not available = default. Craft associated with a parent vessel should use "A" followed by the last 6 digits of the MMSI of the parent vessel. Examples of these craft include towed vessels, rescue boats, tenders, lifeboats and life rafts.	1-n	varch2	42
		Dimension of ship/reference for position	Dimensions of ship in metres and reference point for reported position. For SAR aircraft, the use of this field may be decided by the responsible administration. If used it should indicate the maximum dimensions of the craft. As default should A = B = C = D be set to "0".	1	Number	30
		Type of electronic position fixing device	0 = Undefined (default); 1 = GPS, 2 = GLONASS, 3 = combined GPS/GLONASS, 4 = Loran-C, 5 = Chayka, 6 = integrated navigation system, 7 = surveyed; 8 = Galileo, 9-14 = not used, 15 = internal GNSS	1-n	ENUM	4
		Spare		1-n	varch2	2
		Number of bits	Occupies one-time period	1-n	Number	168
		25.	Single slot binary message	Message ID	Identifier for Message 25; always 25	1-n
Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more			1-n	ENUM	2
Source ID	MMSI number of source station			1-n	Number	30
Destination indicator	0 = Broadcast (no Destination ID field used) 1 = Addressed (Destination ID uses 30 data bits for MMSI)			1-n	ENUM	1
Binary data flag	0 = unstructured binary data (no Application Identifier bits used) 1 = binary data coded as defined by using the 16-bit Application identifier			1-n	boolean	1
Destination ID	Destination ID (if used). If Destination indicator = 0 (Broadcast); no data bits are needed for the Destination ID. If Destination indicator = 1; 30 bits are used for Destination ID and spare bits for byte alignment.			1-n	ENUM	0/30
Spare	Spare (if Destination ID used)			1-n	varch2	0/2
Binary data	Application identifier - Application binary data - Application specific data			1-n	ENUM	Broadcast Maximum 128 Addressed Maximum 96
Maximum number of bits	Occupies up to 1 slot subject to the length of sub-field message content Class B "CS" mobile AIS stations should not transmit			1-n	Number	max 168
				Message ID	Identifier for Message 26; always 26	1-n

MAPPING ITU MESSAGE

- Messaggio obbligatorio
- Messaggio opzionale
- Messaggio non implementato

N. Message	Message	Group/Element Name	Description	Technical Definition		
				Occ.	Type	Length (bit)
26.	Multiple slot binary message with communications state	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more	1-n	ENUM	2
		Source ID	MMSI number of source station	1-n	Number	30
		Destination indicator	0 = Broadcast (no Destination ID field used) 1 = Addressed (Destination ID uses 30 data bits for MMSI)	1-n	ENUM	1
		Binary data flag	0 = unstructured binary data (no Application Identifier bits used) 1 = binary data coded as defined by using the 16-bit Application identifier	1-n	boolean	1
		Destination ID	Destination ID (if used). If Destination indicator = 0 (Broadcast); no data bits are needed for the Destination ID. If Destination indicator = 1; 30 bits are used for the Destination ID and 2 spare bits for byte alignment.	1-n	ENUM	0/30
		Spare bits	Spare (if Destination ID used)	0-1	varch2	0/2
		Binary data	Application identifier - Application binary data - Application specific data	1-n	ENUM	Broadcast Maximum 104 Addressed Maximum 72
		Binary data added by 2nd slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
		Binary data added by 3rd slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
		Binary data added by 4th slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
		Binary data added by 5th slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
		Spare	Needed for byte alignment	1-n	varch2	4
		Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows	1-n	ENUM	1
		Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1	1-n	ENUM	19
Maximum number of bits	Occupies up to 3 slots, or up to 5 slots when able to use FATDMA reservations. For Class B "CS" mobile AIS stations the length of the message should not exceed 3 slots. Class B "CS" mobile AIS stations should not transmit	1-n	Number	Maximum 1064		
27.	Long-range automatic identification system broadcast message	Message ID	Identifier for this message; always 27	1-n	ENUM	6
		Repeat indicator	Always 3	1-n	ENUM	2
		User ID	MMSI number	1-n	Number	30
		Position accuracy	1 = high (<= 10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1
		RAIM flag	Receiver autonomous integrity monitoring (RAIM) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1
		Navigational status	0 = under way using engine, 1 = at anchor, 2 = not under command, 3 = restricted maneuverability, 4 = constrained by her draught, 5 = moored, 6 = aground, 7 = engaged in fishing, 8 = under way sailing, 9 = reserved for future amendment of navigational status for ships carrying DG, HS, or MP, or IMO hazard or pollutant category C, high speed craft (HSC), 10 = reserved for future amendment of navigational status for ships carrying dangerous goods (DG), harmful substances (HS) or marine pollutants (MP), or IMO hazard or pollutant category A, wing in ground (WIG); 11 = power-driven vessel towing astern (regional use), 12 = power-driven vessel pushing ahead or towing alongside (regional use); 13 = reserved for future use, 14 = AIS-SART (active), MOB-AIS, EPIRB-AIS; 15 = undefined = default (also used by AIS-SART, MOB-AIS and EPIRB-AIS under test)	1-n	ENUM	4
		Longitude	Longitude in 1/10 min (1/180°, East = positive (as per 2's complement), West = negative (as per 2's complement) 181° (1A838h) = position older than 6 hours or not available = default)	1-n	Number	18
		Latitude	Latitude in 1/10 min (1/90°, North = positive (as per 2's complement), South = negative (as per 2's complement) 91° (D548h) = position older than 6 hours or not available = default)	1-n	Number	17
		SOG	Knots (0-62); 63 = not available = default	1-n	Number	6
		COG	Degrees (0-359); 511 = not available = default	1-n	Number	9
		Position latency	0 = Reported position latency is less than 5 seconds; 1 = Reported position latency is greater than 5 seconds = default	1	ENUM	1
		Spare	Set to zero, to preserve byte boundaries	1-n	varch2	1
		Number of bits		1-n	Number	96

ASSESSMENT DATA MAPPING NATIONAL AIS SYSTEM

ID	Group/Element Name	Description	Technical Definition			PAESE					
			Occ	Type	Length (bit)	Italia	Croazia	Slovenia	Montenegro	Albania	
1	Message ID	Identifier for this Message 1, 2 or 3	1-n	ENUM	6	x		x		x	n.a.
2	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated.	1-n	ENUM	2	x		x		x	n.a.
3	User ID	MMSI - Maritime Mobile Service Id	1-n	Number	30	x		x	x	x	n.a.
4	Navigational status	0 = under way using engine, 1 = at anchor, 2 = not under command, 3 = restricted maneuverability, 4 = constrained by her draught, 5 = moored, 6 = aground, 7 = engaged in fishing, 8 = under way sailing, 9 = reserved for future amendment of navigational status for ships carrying DG, HS, or MP, or IMO hazard or pollutant category C, high speed craft (HSC), 10 = reserved for future amendment of navigational status for ships carrying dangerous goods (DG), harmful substances (HS) or marine pollutants (MP), or IMO hazard or pollutant category A, wing in ground (WIG); 11 = power-driven vessel towing astern (regional use), 12 = power-driven vessel pushing ahead or towing alongside (regional use); 13 = reserved for future use, 14 = AIS-SART (active), MOB-AIS, EPIRB-AIS, 15 = undefined = default (also used by AIS-SART, MOB-AIS and EPIRB-AIS in pier test)	1-n	ENUM	4	x		x		x	n.a.
5	Rate of turn ROT AIS	0 to +128 = turning right at up to 708° per min or higher 0 to -128 = turning left at up to 708° per min or higher Values between 0 and 708° per min coded by ROT AIS = 4.733 SQRT(ROT sensor) degrees per min where ROT sensor is the Rate of Turn as input by an external Rate of Turn Indicator (TI). ROT AIS is rounded to the nearest integer value. +127 = turning right at more than 5° per 30 s (No TI available) -127 = turning left at more than 5° per 30 s (No TI available) -128 (80 hex) indicates no turn information available (default). ROT data should not be derived from COG information	1-n	ENUM	8	x		x		x	n.a.
6	SOG	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10	x		x		x	n.a.
7	Position accuracy	1 = high (<= 10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
8	Longitude	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement). 181 = (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
9	Latitude	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement). 91° (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
10	COG	Course over ground in 1/10 = (0-3 599), 3 600 (E10h) = not available = default. 3 601-4 095 should not be used	1-n	Number	12	x		x		x	n.a.
11	True heading	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9	x		x		x	n.a.
12	Time stamp	UTC second when the report was generated by the electronic position system (EPFS) (0-59, or 60 if time stamp is not available, which should also be the default value, or 61 if positioning system is in manual input mode, or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6	x		x		x	n.a.
13	Special manoeuvre indicator	0 = not available = default 1 = not engaged in special manoeuvre 2 = engaged in special manoeuvre (i.e. regional passing arrangement on Inland Waterway)	1-n	ENUM	2	x		x		x	n.a.
14	Spare	Not used. Should be set to zero. Reserved for future use.	1-n	varch2	3	x		x		x	n.a.
15	RAIM-flag	Receiver autonomous integrity monitoring (RAIM) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
16	Communication state	SOTDMA communication state ITDMA communication state	1-n	ENUM	19	x		x		x	n.a.
17	Number of bits		1-n	Number	168	x		x		x	n.a.
18	Message ID	Identifier for this Message 4 or 11 4 = UTC and position report from base station; 11 = UTC and position response from mobile station	1-n	ENUM	6	x		x		x	n.a.
19	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
20	UTC year	1-9999; 0 = UTC year not available = default	1-n	Number	14	x		x		x	n.a.
21	UTC month	1-12; 0 = UTC month not available = default; 13-15 not used	1-n	Number	4	x		x		x	n.a.
22	UTC day	1-31; 0 = UTC day not available = default	1-n	Number	5	x		x		x	n.a.
23	UTC hour	0-23; 24 = UTC hour not available = default; 25-31 not used	1-n	Number	5	x		x		x	n.a.
24	UTC minute	0-59; 60 = UTC minute not available = default; 61-63 not used	1-n	Number	6	x		x		x	n.a.
25	UTC second	0-59; 60 = UTC second not available = default; 61-63 not used	1-n	Number	6	x		x		x	n.a.
26	Position accuracy	1 = high (<= 10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
27	Longitude	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181 = (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
28	Latitude	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default) Use or amendment corrections is deemed by next position accuracy above.	1-n	Number	27	x		x		x	n.a.
29	Type of electronic position fixing device	0 = undefined (default) 1 = global positioning system (GPS) 2 = GNSS (GLONASS) 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4	x		x		x	n.a.
30	Transmission control for long-range broadcast message	0 = default - Class-A AIS station stops transmission of Message 27 within an AIS base station coverage area. 1 = Request Class-A station to transmit Message 27 within an AIS base station coverage area. Base station coverage area should be defined by Message 23; if Message 23 is not received, the AIS station which is allowed to transmit on CH75 and 76 should ignore this bit and transmit Message 27.	1-n	boolean	1	x		x		x	n.a.
31	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	9	x		x		x	n.a.
32	RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
33	Communication state	SOTDMA communication state	1-n	ENUM	19	x		x		x	n.a.
34	Message ID	Identifier for this Message 5	1-n	ENUM	6	x		x		x	n.a.
35	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
36	AIS version indicator	0 = station compliant with Recommendation ITU-R M.1371-1 1 = station compliant with Recommendation ITU-R M.1371-3 (or later) 2 = station compliant with Recommendation ITU-R M.1371-5 (or later) 3 = station compliant with future editions	1	ENUM	2	x		x		x	n.a.
37	IMO number	0 = not available = default - Not applicable to SAR aircraft 000000001-000999999 not used 0001000000-0009999999 = valid IMO number; 0010000000-1073741823 = official flag state number	1	varch2	30	x		x	x	x	n.a.
38	Call sign	Craft associated with a parent vessel, should use "A" followed by the last 6 digits of the MMSI of the parent vessel. Examples of these craft include towed vessels, rescue boats, tenders, lifeboats and liferafts.	1-n	varch2	42	x		x	x	x	n.a.
39	Name	The Name should be as shown on the station radio license.	1-n	varch2	120	x		x		x	n.a.
40	Type of ship and cargo type	0 = not available or no ship = default 1-99 = defined 100-199 = reserved, for regional use 200-255 = reserved, for future use Not applicable to SAR aircraft	1-n	ENUM	8	x		x		x	n.a.
41	Overall dimension/ reference for position	Reference point for reported position. Also indicates the dimension of ship (m). For SAR aircraft, the use of this field may be decided by the responsible administration. If used it should indicate the maximum dimensions of the craft. As default should A = B = C = D be set to "0"	1	Number	30	x		x		x	n.a.
42	Type of electronic position fixing device	0 = undefined (default) 1 = GPS 2 = GLONASS 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4	x		x		x	n.a.

ASSESSMENT DATA MAPPING NATIONAL AIS SYSTEM

ID	Group/Element Name	Description	Technical Definition			PAESE					
			Occ	Type	Length (bit)	Italia	Croazia	Slovenia	Montenegro	Albania	
43	ETA	Estimated time of arrival; MMDDHHMM UTC Bits 19-16: month; 1-12; 0 = not available = default Bits 15-11: day; 1-31; 0 = not available = default Bits 10-6: hour; 0-23; 24 = not available = default Bits 5-0: minute; 0-59; 60 = not available = default	1	date-time	20	x		x		x	n.a.
44	Maximum present static draught	In 1/10 m, 255 = draught 25.5 m or greater, 0 = not available = default; in accordance with IMO Resolution A.851 Not applicable to SAR aircraft, should be set to 0	1	Number	8	x		x		x	n.a.
45	Destination	Maximum 20 characters using 6-bit ASCII; For SAR aircraft, the use of this field may be decided by the responsible administration	1	varch2	120	x		x		x	n.a.
46	DTE	Data terminal equipment (DTE) ready (0 = available, 1 = not available = default)	1-n	date	1	x		x		x	n.a.
47	Spare	Spare. Not used. Should be set to zero. Reserved for future use	1-n	varch2	1	x		x		x	n.a.
48	Number of bits		1-n	Number	424	x		x		x	n.a.
49	Message ID	Identifier for Message 6; always 6	1-n	ENUM	6	x		x		x	n.a.
50	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
51	Source ID	MMSI number of source station	1-n	Number	30	x		x	x	x	n.a.
52	Sequence number	0 - 3	1-n	ENUM	2	x		x		x	n.a.
53	Destination ID	MMSI number of destination station	1-n	Number	30	x		x	x	x	n.a.
54	Retransmit flag	Retransmit flag should be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted	1-n	boolean	1	x		x		x	n.a.
55	Spare	Not used. Should be zero. Reserved for future use	1-n	varch2	1	x		x		x	n.a.
56	Binary data	Application identifier - Application data - Application specific data	1-n	ENUM	max 936	x		x		x	n.a.
57	Maximum number of bits		1-n	Number	max 1008	x		x		x	n.a.
58	Message ID	Identifier for Messages 7 or 13 7 = binary acknowledge 13 = safety related acknowledge	1-n	ENUM	6	x		x		x	n.a.
59	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
60	Source ID	MMSI number of source of this acknowledge (ACK)	1-n	Number	30	x		x	x	x	n.a.
61	Spare	Not used. Should be zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
62	Destination ID1	MMSI number of first destination of this ACK	1-n	Number	30	x		x	x	x	n.a.
63	Sequence number for ID1	Sequence number of message to be acknowledged; 0-3	1-n	ENUM	2	x		x		x	n.a.
64	Destination ID2	MMSI number of second destination of this ACK; should be omitted if no destination ID2	0-n	Number	30	x		x	x	x	n.a.
65	Sequence number for ID2	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID2	0-n	ENUM	2	x		x		x	n.a.
66	Destination ID3	MMSI number of third destination of this ACK; should be omitted if no destination ID3	0-n	Number	30	x		x	x	x	n.a.
67	Sequence number for ID3	Sequence number of message to be acknowledged; 0-3; should be omitted if no destination ID3	0-n	ENUM	2	x		x		x	n.a.
68	Destination ID4	MMSI number of fourth destination of this ACK; should be omitted if no destination ID4	0-n	Number	30	x		x	x	x	n.a.
69	Sequence number for ID4	Sequence number of message to be acknowledged; 0-3. Should be omitted if there is no destination ID4	0-n	ENUM	2	x		x		x	n.a.
70	Number of bits		1-n	Number	72 - 168	x		x		x	n.a.
71	Message ID	Identifier for Message 8; always 8	1-n	ENUM	6	x		x		x	n.a.
72	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. default = 0; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
73	Source ID	MMSI number of source station	1-n	Number	30	x		x	x	x	n.a.
74	Binary data	Application identifier - Application data - Application specific data	1-n	ENUM	max 968	x		x		x	n.a.
75	Message ID	Identifier for Message 9; always 9	1-n	ENUM	6	x		x		x	n.a.
76	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
77	Altitude (GNSS)	Altitude (derived from GNSS or barometric (see altitude sensor parameter below)) (m) (0-4 094 m) 4 095 = not available, 4 094 = 4 094 m or higher	1	Number	12	x		x		x	n.a.
78	SOG	Speed over ground in knot steps (0-1 022 knots) 1 023 = not available, 1 022 = 1 022 knots or higher	1-n	Number	10	x		x		x	n.a.
79	Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
80	Longitude	Longitude in 1/10 000 min (180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181 = (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
81	Latitude	Latitude in 1/10 000 min (90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
82	COG	Course over ground in 1/10 = (0-3 599); 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12	x		x		x	n.a.
83	Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60 if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative)	1-n	ENUM	6	x		x		x	n.a.
84	Altitude sensor	0 = GNSS 1 = barometric source	1	ENUM	1	x		x		x	n.a.
85	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	7	x		x		x	n.a.
86	DTE	Data terminal ready (0 = available 1 = not available = default)	1-n	date	1	x		x		x	n.a.
87	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	3	x		x		x	n.a.
88	Assigned mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1	x		x		x	n.a.
89	RAIM-flag	RAIM flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
90	Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows	1-n	ENUM	1	x		x		x	n.a.
91	Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1	1-n	ENUM	19	x		x		x	n.a.
92	Message ID	Identifier for Message 10; always 10	1-n	ENUM	6	x		x		x	n.a.
93	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
94	Source ID	MMSI number of station which inquires UTC	1-n	Number	30	x		x	x	x	n.a.
95	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
96	Destination ID	MMSI number of station which is inquired	1-n	Number	30	x		x	x	x	n.a.
97	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
98	Number of bits		1-n	Number	72	x		x		x	n.a.
99	Position accuracy	1 = high (10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
100	Latitude	Latitude in 1/10 000 min (90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
101	Transmission control for long-range broadcast message	0 = default - Class-A AIS station stops transmission of Message 27 within an AIS base station coverage area. 1 = Request Class-A station to transmit Message 27 within an AIS base station coverage area. Base station coverage area should be defined by Message 23; If Message 23 is not received, the AIS station which is allowed to transmit on CH75 and 76 should ignore this bit and transmit Message 27.	1-n	ENUM	1	x		x		x	n.a.
102	RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
103	Message ID	Identifier for Message 12; always 12	1-n	ENUM	6	x		x		x	n.a.
104	Source ID	MMSI number of station which is the source of the message	1-n	Number	30	x		x	x	x	n.a.
105	Sequence number	is used by the originating application to sub-divide the text and by the recipient application to re-assemble the text	1-n	ENUM	2	x		x		x	n.a.
106	Destination ID	MMSI number of station which is the destination of the message	1-n	Number	30	x		x	x	x	n.a.
107	Spare	Not used. Should be zero. Reserved for future use	1-n	varch2	1	x		x		x	n.a.
108	Safety related text	6-bit ASCII	1-n	varch2	max 936	x		x		x	n.a.
109	Message ID	Identifier for Message 14; always 14	1-n	ENUM	6	x		x		x	n.a.
110	Source ID	MMSI number of source station of message	1-n	Number	30	x		x	x	x	n.a.
111	Safety related text	6-bit ASCII	1-n	varch2	max 968	x		x		x	n.a.
112	Message ID	Identifier for Message 15; always set to 15	1-n	ENUM	6	x		x		x	n.a.
113	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
114	Source ID	MMSI number of interrogating station	1-n	Number	30	x		x	x	x	n.a.
115	Destination ID1	MMSI number of first interrogated station	1-n	Number	30	x		x	x	x	n.a.
116	Message ID1.1	First requested message type from first interrogated station	1	varch2	6	x		x		x	n.a.
117	Slot offset 1.1	Response slot offset for first requested message from first interrogated station	1	Number	12	x		x		x	n.a.
118	Message ID1.2	Second requested message type from first interrogated station	1	varch2	6	x		x		x	n.a.
119	Slot offset 1.2	Response slot offset for second requested message from first interrogated station	1	Number	12	x		x		x	n.a.
120	Destination ID 2	MMSI number of second interrogated station	0-n	Number	30	x		x	x	x	n.a.
121	Message ID 2.1	Requested message type from second interrogated station	1	varch2	6	x		x		x	n.a.
122	Slot offset 2.1	Response slot offset for requested message from second interrogated station	1	Number	12	x		x		x	n.a.
123	Number of bits		1-n	Number	88 - 160	x		x		x	n.a.
124	Message ID	Identifier for Message 16. Always 16	1-n	ENUM	6	x		x		x	n.a.
125	Source ID	MMSI of assigning station	1-n	Number	30	x		x	x	x	n.a.
126	Spare	Spare. Should be set to zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
127	Destination ID A	MMSI number. Destination identifier A	1	Number	30	x		x	x	x	n.a.
128	Offset A	Offset from current slot to first assigned slot	1	Number	12	x		x		x	n.a.
129	Increment A	Increment to next assigned slot	1	Number	10	x		x		x	n.a.
130	Destination ID B	MMSI number. Destination identifier B. Should be omitted if there is assignment to station A, only	0-1	Number	30	x		x	x	x	n.a.
131	Offset B	Offset from current slot to first assigned slot. Should be omitted if there is assignment to station A, only	0-1	Number	12	x		x		x	n.a.
132	Increment B	Increment to next assigned slot (1). Should be omitted, if there is assignment to station A, only	0-1	Number	10	x		x		x	n.a.

ASSESSMENT DATA MAPPING NATIONAL AIS SYSTEM

ID	Group/Element Name	Description	Technical Definition			PAESE					
			Occ	Type	Length (bit)	Italia	Croazia	Slovenia	Montenegro	Albania	
133	Spare	Spare. Not used. Should be set to zero. The number of spare bits, which should be 0 or 4, should be adjusted in order to observe byte boundaries. Reserved for future use	1-n	varch2	max 4	x		x		x	n.a.
134	Number of bits		1-n	Number	96 or 144	x		x		x	n.a.
135	Message ID	Identifier for Message 17; always 17	1-n	ENUM	6	x		x		x	n.a.
136	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat any more	1-n	ENUM	2	x		x		x	n.a.
137	Source ID	MMSI of the base station	1-n	Number	30	x		x	x	x	n.a.
138	Spare	Spare. Should be set to zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
139	Longitude	Surveyed longitude of DGNS reference station in 1/10 min (+/-180°, East = positive, West = negative). If interrogated and differential correction service not available, the longitude should be set to 181°	1-n	Number	18	x		x		x	n.a.
140	Latitude	Surveyed latitude of DGNS reference station in 1/10 min (+/- 90°, North = positive, South = negative). If interrogated and differential correction service not available, the latitude should be set to 91°	1-n	Number	17	x		x		x	n.a.
141	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	5	x		x		x	n.a.
142	Data	Differential correction data. If interrogated and differential correction service not available, the data field should remain empty (zero bits). This should be interpreted by the recipient as DGNS data words set to zero	0-1	varch2	0-736	x		x		x	n.a.
143	Number of bits	80 bits; assumes N = 0; 816 bits; assumes N = 29 (maximum value)	1-n	Number	80-816	x		x		x	n.a.
144	Message type	Recommendation ITU-R M 823	0-1	ENUM	6	x		x		x	n.a.
145	Station ID	Recommendation ITU-R M 823 station identifier	0-1	Number	10	x		x		x	n.a.
146	Z count	Time value in 0.6 s (0-3 599.4)	0-1	Number	13	x		x		x	n.a.
147	Sequence number	Message sequence number (cyclic 0-7)	0-1	ENUM	3	x		x		x	n.a.
148	N	Number of DGNS data words following the two word header, up to a maximum of 29	0-1	Number	5	x		x		x	n.a.
149	Health	Reference station health (specified in Recommendation ITU-R M.823)	0-1	ENUM	3	x		x		x	n.a.
150	DGNS data word	DGNS message data words excluding parity	0-1	varch2	N = 24	x		x		x	n.a.
151	Number of bits	Assuming N = 29 (the maximum value)	1-n	Number	736	x		x		x	n.a.
152	Message ID	Identifier for Message 18; always 18	1-n	ENUM	6	x		x		x	n.a.
153	Repeat indicator	Used by the repeater to indicate how many times a message has been repeated. 0 = default; 3 = do not repeat anymore; should be 0 for "CS" transmissions	1-n	ENUM	2	x		x		x	n.a.
154	User ID	MMSI number	1-n	Number	30	x		x	x	x	n.a.
155	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	8	x		x		x	n.a.
156	SOG	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10	x		x		x	n.a.
157	Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
158	Longitude	Longitude in 1/10 000 min (+/-180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
159	Latitude	Latitude in 1/10 000 min (+/- 90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
160	COG	Course over ground in 1/10 = (0-3 599), 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12	x		x		x	n.a.
161	True heading	Degrees (0-359) (S11 indicates not available = default)	1-n	Number	9	x		x		x	n.a.
162	Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60 if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative) 61, 62, 63 are not used by "CS" AIS	1-n	ENUM	6	x		x		x	n.a.
163	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	2	x		x		x	n.a.
164	Class B unit flag	0 = Class B SOTDMA unit 1 = Class B "CS" unit	1	ENUM	1	x		x		x	n.a.
165	Class B display flag	0 = No display available; not capable of displaying Message 12 and 14 1 = Equipped with integrated display displaying Message 12 and 14	1	boolean	1	x		x		x	n.a.
166	Class B DSC flag	0 = Not equipped with DSC function 1 = Equipped with DSC function (dedicated or time-shared)	1	boolean	1	x		x		x	n.a.
167	Class B band flag	0 = Capable of operating over the upper 525 kHz band of the marine band 1 = Capable of operating over the whole marine band (irrelevant if "Class B Message 22 flag" is 0)	1	boolean	1	x		x		x	n.a.
168	Class B Message 22 flag	0 = No frequency management via Message 22, operating on AIS 1, AIS 2 only 1 = Frequency management via Message 22	1	boolean	1	x		x		x	n.a.
169	Mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1	boolean	1	x		x		x	n.a.
170	RAIM-flag	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
171	Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows (always "1" for Class-B "CS")	1-n	ENUM	1	x		x		x	n.a.
172	Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1 Because Class B "CS" does not use any Communication State information, this field should be filled with the following value: 1100000000000000110	1-n	ENUM	19	x		x		x	n.a.
173	Number of bits	Occupies one slot	1-n	Number	168	x		x		x	n.a.
174	Message ID	Identifier for Message 19; always 19	1-n	ENUM	6	x		x		x	n.a.
175	SOG Provided by Message 18	Speed over ground in 1/10 knot steps (0-102.2 knots) 1 023 = not available, 1 022 = 102.2 knots or higher	1-n	Number	10	x		x		x	n.a.
176	Position accuracy Provided by Message 18	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
177	Longitude Provided by Message 18	Longitude in 1/10 000 min (+/- 180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
178	Latitude Provided by Message 18	Latitude in 1/10 000 min (+/- 90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91 = (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
179	COG Provided by Message 18	Course over ground in 1/10 = (0-3 599), 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12	x		x		x	n.a.
180	True heading Provided by Message 18	Degrees (0-359) (S11 indicates not available = default)	1-n	Number	9	x		x		x	n.a.
181	Time stamp Provided by Message 18	UTC second when the report was generated by the EPFS (0-59 or 60) if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6	x		x		x	n.a.
182	Spare	Not used. Should be set to zero. Reserved for future use	1-n	varch2	4	x		x		x	n.a.
183	Name Provided by Message 24A	Maximum 20 characters 6-bit ASCII	1-n	varch2	120	x		x		x	n.a.
184	Type of ship and cargo type Provided by Message 24B	0 = not available or no ship = default 1-99 = as defined in 100-199 = reserved, for regional use 200-255 = reserved, for future use	1-n	ENUM	8	x		x		x	n.a.
185	Dimension of ship/reference for position Provided by Message 24B	Dimensions of ship in metres and reference point for reported position	1-n	Number	30	x		x		x	n.a.
186	Type of electronic position fixing device Provided by Message 24B	0 = Undefined (default); 1 = GPS; 2 = GLONASS; 3 = combined GPS/GLONASS; 4 = Loran-C; 5 = Chayka; 6 = integrated navigation system; 7 = surveyed; 8 = Galileo; 9-14 = not used; 15 = internal GNSS	1-n	ENUM	4	x		x		x	n.a.
187	RAIM-flag Provided by Message 18	RAIM (Receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use	1-n	boolean	1	x		x		x	n.a.
188	DTE Provided by Message 18 (Display Flag)	Data terminal ready (0 = available 1 = not available; = default)	1-n	date	1	x		x		x	n.a.
189	Assigned mode flag Provided by Message 18 (Mode Flag)	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1	x		x		x	n.a.
190	Number of bits	Occupies two slots	1-n	Number	312	x		x		x	n.a.
191	Message ID	Identifier for Message 20; always 20	1-n	ENUM	6	x		x		x	n.a.
192	Source station ID	MMSI number of base station	1	Number	30	x		x	x	x	n.a.
193	Offset number 1	Reserved offset number; 0 = not available	1	Number	12	x		x		x	n.a.
194	Number of slots 1	Number of reserved consecutive slots: 1-15; 0 = not available	1	Number	4	x		x		x	n.a.
195	Time-out 1	Time-out value in minutes; 0 = not available	1	Number	3	x		x		x	n.a.
196	Increment 1	Increment to repeat reservation block 1; 0 = one reservation block per frame	1	Number	11	x		x		x	n.a.
197	Offset number 2	Reserved offset number (optional)	0-1	Number	12	x		x		x	n.a.
198	Number of slots 2	Number of reserved consecutive slots: 1-15; optional	0-1	Number	4	x		x		x	n.a.
199	Time-out 2	Time-out value in minutes (optional)	0-1	Number	3	x		x		x	n.a.
200	Increment 2	Increment to repeat reservation block 2 (optional)	0-1	Number	11	x		x		x	n.a.
201	Offset number 3	Reserved offset number (optional)	0-1	Number	12	x		x		x	n.a.
202	Number of slots 3	Number of reserved consecutive slots: 1-15; optional	0-1	Number	4	x		x		x	n.a.
203	Time-out 3	Time-out value in minutes (optional)	0-1	Number	3	x		x		x	n.a.
204	Increment 3	Increment to repeat reservation block 3 (optional)	0-1	Number	11	x		x		x	n.a.
205	Offset number 4	Reserved offset number (optional)	0-1	Number	12	x		x		x	n.a.
206	Number of slots 4	Number of reserved consecutive slots: 1-15; optional	0-1	Number	4	x		x		x	n.a.
207	Time-out 4	Time-out value in minutes (optional)	0-1	Number	3	x		x		x	n.a.
208	Increment 4	Increment to repeat reservation block 4 (optional)	0-1	Number	11	x		x		x	n.a.
209	Spare	Not used. Should be set to zero. The number of spare bits which may be 0, 2, 4 or 6 should be adjusted in order to observe byte boundaries. Reserved for future use	1-n	varch2	max 6	x		x		x	n.a.
210	Number of bits		1-n	Number	72-160	x		x		x	n.a.
211	Message ID	Identifier for Message 21	1-n	ENUM	6	x		x		x	n.a.
212	ID	MMSI number	1	Number	30	x		x	x	x	n.a.
213	Type of aids-to-navigation	0 = not available = default; refer to appropriate definition set up by IALA	1	ENUM	5	x		x		x	n.a.
214	Name of Aids-to-Navigation	Maximum 20 characters 6-bit ASCII, as defined "@@@@@@@@@@@@@@@@@@@" = not available = default. The name of the AtoN may be extended by the parameter "Name of Aid-to-Navigation Extension" below	1	varch2	120	x		x		x	n.a.
215	Position accuracy	1 = high (<=10 m) 0 = low (>10 m) 0 = default	1-n	ENUM	1	x		x		x	n.a.
216	Longitude	Longitude in 1/10 000 min of position of an AtoN (+/- 180°, East = positive, West = negative 181 = (6791AC0h) = not available = default)	1-n	Number	28	x		x		x	n.a.
217	Latitude	Latitude in 1/10 000 min of an AtoN (+/- 90°, North = positive, South = negative 91 = (3412140h) = not available = default)	1-n	Number	27	x		x		x	n.a.
218	Dimension/ reference for position	Reference point for reported position; also indicates the dimension of an AtoN (m), if relevant	1	Number	30	x		x		x	n.a.

ASSESSMENT DATA MAPPING NATIONAL AIS SYSTEM

ID	Group/Element Name	Description	Technical Definition			PAESE					
			Occ	Type	Length (bit)	Italia	Croazia	Slovenia	Montenegro	Albania	
294	Navigational status	0 = under way using engine, 1 = at anchor, 2 = not under command, 3 = restricted maneuverability, 4 = constrained by her draught, 5 = moored, 6 = aground, 7 = engaged in fishing, 8 = under way sailing, 9 = reserved for future amendment of navigational status for ships carrying DG, HS, or MP, or IMO hazard or pollutant category C, high speed craft (HSC), 10 = reserved for future amendment of navigational status for ships carrying dangerous goods (DG), harmful substances (HS) or marine pollutants (MP), or IMO hazard or pollutant category A, wing in ground (WG); 11 = power-driven vessel towing astern (regional use), 12 = power-driven vessel pushing ahead or towing alongside (regional use); 13 = reserved for future use, 14 = AIS-SART (active), MOB-AIS, EPIRB-AIS, 15 = undefined = default (also used by AIS-SART, MOB-AIS and EPIRB-AIS under test)	1-n	ENUM	4	x		x		x	n.a.
295	Longitude	Longitude in 1/10 min (1/180°, East = positive (as per 2's complement), West = negative (as per 2's complement) 181° (1A838h) = position older than 6 hours or not available = default)	1-n	Number	18	x		x		x	n.a.
296	Latitude	Latitude in 1/10 min (1/90°, North = positive (as per 2's complement), South = negative (as per 2's complement) 91° (D548h) = position older than 6 hours or not available = default)	1-n	Number	17	x		x		x	n.a.
297	SOG	Knots (0-62); 63 = not available = default	1-n	Number	6	x		x		x	n.a.
298	COG	Degrees (0-359); 511 = not available = default	1-n	Number	9	x		x		x	n.a.
299	Position latency	0 = Reported position latency is less than 5 seconds; 1 = Reported position latency is greater than 5 seconds = default	1	ENUM	1	x		x		x	n.a.
300	Spare	Set to zero, to preserve byte boundaries	1-n	varch2	1	x		x		x	n.a.
301	Number of bits		1-n	Number	96	x		x		x	n.a.
302	Name of ship		1	varchar2	n.d.				x		
303	IMO number		0-1	number	n.d.				x		
304	MMSI number		0-1	number	n.d.				x		
305	Call sign		0-1	varchar2	n.d.				x		
306	Ship type	selection from code	1	varchar2	n.d.				x		
307	Flag	selection from code	1	varchar2	n.d.				x		
308	Port of registry	selection from code	1	varchar2	n.d.				x		
309	Ship operator		1	varchar2	n.d.				x		
310	Propulsion power (kW)		0-1	number	n.d.				x		
311	DWT		0-1	number	n.d.				x		
312	GT		0-1	number	n.d.				x		
313	NT		0-1	number	n.d.				x		
314	L.O.A.		0-1	number	n.d.				x		
315	B		0-1	number	n.d.				x		
316	Summer draft		0-1	number	n.d.				x		
317	INF class (if relevant)		0-1	number	n.d.				x		
318	Local agent		1	varchar2	n.d.				x		
319	Previous port	selection from code	1	varchar2	n.d.				x		
320	ETD from previous port		1	date-time	n.d.				x		
321	Port of call	selection from code	1	varchar2	n.d.				x		
322	ETA to port of call		1	date-time	n.d.				x		
323	ETD from port of call		1	date-time	n.d.				x		
324	Next port	selection from code	1	varchar2	n.d.				x		
325	ETA to next port		1	date-time	n.d.				x		
326	Number of crew (on arrival)		1	number	n.d.				x		
327	Number of passenger (on arrival)		1	number	n.d.				x		
328	Type of bunkers on board (on arrival)	selection from code	1	varchar2	n.d.				x		
329	Amount of bunkers on board (on arrival)		1	number	n.d.				x		
330	Port of loading of cargo	If given than mandatory / selection from code	1	varchar2	n.d.				x		
331	Port of discharge of cargo	If given than mandatory / selection from code	1	varchar2	n.d.				x		
332	Type of cargo	If given than mandatory	1	varchar2	n.d.				x		
333	Amount of cargo (mass - tons)	If given than mandatory	1	number	n.d.				x		
334	Amount of cargo (units - pcs)	If given than mandatory	1	number	n.d.				x		
335	Bill of lading of dangerous goods		0-n	varchar2	n.d.				x		
336	247 contact numbers fo dangerous goods	If given than mandatory	1	varchar2	n.d.				x		
337	Port of loading of dangerous goods	If given than mandatory / selection from code	1	varchar2	n.d.				x		
338	Port of discharge of dangerous goods	If given than mandatory / selection from code	1	varchar2	n.d.				x		
339	Type of dangerous goods	If given than mandatory / selection from code	1	varchar2	n.d.				x		
340	Dangerous goods details (UN#, pollution category, c)	If given than mandatory / selection from code	1	varchar2	n.d.				x		
341	Amount of dangerous goods (mass - kgs)	If given than mandatory	1	number	n.d.				x		
342	Amount of dangerous goods (units - pcs)	If given than mandatory	1	number	n.d.				x		
343	Type of packing of dangerous goods	If given than mandatory / selection from code	1	varchar2	n.d.				x		
344	Position ob board for dangerous goods	If given than mandatory	1	varchar2	n.d.				x		
345	Container number with dangerous goods	If given than mandatory	1	number	n.d.				x		
346	Any other information for dangerous goods		0-n	varchar2	n.d.				x		
347	Last port waste delivered	selection from code	0-1	varchar2	n.d.				x		
348	Date of last delivery of waste		0-1	date	n.d.				x		
349	Port where waste will be delivered	selection from code	1	varchar2	n.d.				x		
350	Type of waste	selection from code	1	varchar2	n.d.				x		
351	Waste details		1	varchar2	n.d.				x		
352	Amount of waste to be delivered (sq.m.)		1	number	n.d.				x		
353	Max amount to be possible to be held on board (sq.m.)		1	number	n.d.				x		
354	Amount of waste held on board (sq.m.)		1	number	n.d.				x		
355	Estimate amount of waste till next port (sq.m.)		1	number	n.d.				x		
356	Security level on board		1	number	n.d.				x		
357	Valid ISCC	select (yes / no)	1	varchar2	n.d.				x		
358	Type of ISCC		1	varchar2	n.d.				x		
359	Issuer of ISCC		1	varchar2	n.d.				x		
360	Expiry of ISCC		1	date-time	n.d.				x		
361	Valid SSP on board	select (yes / no)	1	varchar2	n.d.				x		
362	Other security data		0-1	varchar2	n.d.				x		
363	CSO name		1	varchar2	n.d.				x		
364	CSO contact details		1	varchar2	n.d.				x		
365	Last ten ports	If given than mandatory / selection from code	1	varchar2	n.d.				x		
366	ATA and ATD at last ten ports	If given than mandatory	1	date-time	n.d.				x		
367	Port facility number of last ten ports	If given than mandatory	1	number	n.d.				x		
368	Security level on board at last ten ports	If given than mandatory	1	number	n.d.				x		
369	Special measures at last ten ports		0-n	varchar2	n.d.				x		
370	Ship-to-ship activities	If given than mandatory / selection from code	1	varchar2	n.d.				x		
371	Date from (with ship-to-ship activity)	If given than mandatory	1	date	n.d.				x		
372	Date to (with ship-to-ship activity)	If given than mandatory	1	date	n.d.				x		
373	Security measures		0-n	varchar2	n.d.				x		
374	Place of ship-to-ship activity	selection from code	0-n	varchar2	n.d.				x		
375	Latitude		0-n	varchar2	n.d.				x		
376	Longitude		0-n	varchar2	n.d.				x		
377	Location		0-n	varchar2	n.d.				x		
378	ATA at port of call		1	date-time	n.d.				x		
379	Date and time of berthing/anchoring		1	date-time	n.d.				x		
380	Berth number	selection from code	1	number	n.d.				x		
381	Number of tugs used		1	number	n.d.				x		
382	Arrival draft forward		1	number	n.d.				x		
383	Arrival draft aft		1	number	n.d.				x		
384	Max arrival draft		1	number	n.d.				x		
385	Pilot name at berthing	If given than mandatory / selection from code	1	varchar2	n.d.				x		
386	Date and time of start of pilotage at berthing	If given than mandatory	1	date-time	n.d.				x		
387	Date and time of end of pilotage at berthing	If given than mandatory	1	date-time	n.d.				x		
388	Free pratique issued at (date/time)		1	date-time	n.d.				x		
389	Number of crew (on departure)		1	number	n.d.				x		
390	Number of passenger (on departure)		1	number	n.d.				x		
391	Type of bunkers on board (on departure)	selection from code	1	varchar2	n.d.				x		
392	Amount of bunkers on board (on departure)		1	number	n.d.				x		
393	Departure permit issued at (date/time)		1	date-time	n.d.				x		
394	Date and time of un-berthing/heaving-up anchor		1	date-time	n.d.				x		
395	Number of tugs used		1	number	n.d.				x		
396	Departure draft forward		1	number	n.d.				x		

ASSESSMENT DATA MAPPING NATIONAL AIS SYSTEM

ID	Group/Element Name	Description	Technical Definition			PAESE				
			Occ.	Type	Length (bit)	Italia	Croazia	Slovenia	Montenegro	Albania
397	Departure draft aft		1	number	n.d.			x		
398	Max departure draft		1	number	n.d.			x		
399	Pilot name at un-berthing	If given than mandatory / selection from code	1	varchar2	n.d.			x		
400	Date and time of start of pilotage at un-berthing	If given than mandatory	1	date-time	n.d.			x		
401	Date and time of end of pilotage at un-berthing	If given than mandatory	1	date-time	n.d.			x		

DATA MAPPING AIS SYSTEM UNIQUE

ID	Group/Element Name	Description	Occ.	Type	Length (bit)
1	Addressed or broadcast message indicator	0 = broadcast geographical area message = default; 1 = addressed message (to individual station(s))	1	ENUM	1
2	AIS version indicator	0 = station compliant with Recommendation ITU-R M.1371-1 1 = station compliant with Recommendation ITU-R M.1371-3 (or later) 2 = station compliant with Recommendation ITU-R M.1371-5 (or later) 3 = station compliant with future editions	1	ENUM	2
3	Altitude (GNSS)	Altitude (derived from GNSS or barometric (see altitude sensor parameter below)) (m) (0-4 094 m) 4 095 = not available, 4 094 = 4 094 m or higher	1	Number	12
4	Altitude sensor	0 = GNSS 1 = barometric source	1	ENUM	1
5	Assigned mode flag	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1
6	Assigned mode flag Provided by Message 18 (Mode Flag)	0 = Station operating in autonomous and continuous mode = default 1 = Station operating in assigned mode	1-n	boolean	1
7	AtoN status	Reserved for the indication of the AtoN status 00000000 = default	1	ENUM	8
8	Binary data	Application identifier - Application binary data - Application specific data	1-n	ENUM	max 936
9	Binary data added by 2nd slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
10	Binary data added by 3rd slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
11	Binary data added by 4th slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
12	Binary data added by 5th slot	Allows for 32 bits of bit-stuffing	1	ENUM	224
13	Binary data flag	0 = unstructured binary data (no Application Identifier bits used) 1 = binary data coded as defined by using the 16-bit Application identifier	1-n	boolean	1
14	Call sign	Call sign of the MMSI-registered vessel. 7 x 6 bit ASCII characters. "@@@@@@" = not available = default. Craft associated with a parent vessel should use "A" followed by the last 6 digits of the MMSI of the parent vessel. Examples of these craft include towed vessels, rescue boats, tenders, lifeboats and life rafts.	1-n	varch2	42
15	Channel A	Channel number of 25 kHz simplex or simplex use of 25 kHz duplex in accordance with Recommendation ITU-R M.1084.	1	Number	12
16	Channel A bandwidth	0 = default (as specified by channel number); 1 = spare (formerly 12.5 kHz bandwidth in Recommendation ITU-R M.1371-1 now obsolete)	1	boolean	1
17	Channel B	Channel number of 25 kHz simplex or simplex use of 25 kHz duplex in accordance with Recommendation ITU-R M.1084.	1	Number	12
18	Channel B bandwidth	0 = default (as specified by channel number); 1 = spare (formerly 12.5 kHz bandwidth in Recommendation ITU-R M.1371-1 now obsolete)	1	boolean	1
19	Class B band flag	0 = Capable of operating over the upper 525 kHz band of the marine band 1 = Capable of operating over the whole marine band (irrelevant if "Class B Message 22 flag" is 0)	1	boolean	1
20	Class B display flag	0 = No display available, not capable of displaying Message 12 and 14 1 = Equipped with integrated display displaying Message 12 and 14	1	boolean	1
21	Class B DSC flag	0 = Not equipped with DSC function 1 = Equipped with DSC function (dedicated or time-shared)	1	boolean	1
22	Class B Message 22 flag	0 = No frequency management via Message 22, operating on AIS 1, AIS 2 only 1 = Frequency management via Message 22	1	boolean	1
23	Class B unit flag	0 = Class B SOTDMA unit 1 = Class B "CS" unit	1	ENUM	1
24	COG_12bit	Course over ground in 1/10° (0-3 599), 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12
25	COG_9bit	Degrees (0-359); 511 = not available = default	1-n	Number	9
26	COG Provided by Message 18	Course over ground in 1/10° (0-3 599), 3 600 (E10h) = not available = default; 3 601-4 095 should not be used	1-n	Number	12
27	Communication state	SOTDMA communication state, if communication state selector flag is set to 0, or ITDMA communication state, if communication state selector flag is set to 1 Because Class B "CS" does not use any Communication State information, this field should be filled with the following value: 1100000000000000110	1-n	ENUM	19
28	Communication state selector flag	0 = SOTDMA communication state follows 1 = ITDMA communication state follows (always "1" for Class-B "CS")	1-n	ENUM	1
29	Data	Differential correction data. If interrogated and differential correction service not available, the data field should remain empty (zero bits). This should be interpreted by the recipient as DGNS data words set to zero	0-1	varch2	0-736
30	Destination	Maximum 20 characters using 6-bit ASCII; For SAR aircraft, the use of this field may be decided by the responsible administration	1	varch2	120
31	Destination ID	Destination ID (if used); If Destination indicator = 0 (Broadcast); no data bits are needed for the Destination ID. If Destination indicator = 1; 30 bits are used for Destination ID and spare bits for byte alignment.	1-n	ENUM	0/30
32	Destination ID_MMSI_Number	MMSI number of destination station	1-n	Number	30
33	Destination ID 2	MMSI number of second interrogated station	0-n	Number	30
34	Destination ID A	MMSI number, Destination identifier A	1	Number	30
35	Destination ID B	MMSI number, Destination identifier B. Should be omitted if there is assignment to station A, only	0-1	Number	30
36	Destination ID 1	MMSI number of first interrogated station	1-n	Number	30
37	Destination ID 1	MMSI number of first destination of this ACK	1-n	Number	30
38	Destination ID 2	MMSI number of second destination of this ACK; should be omitted if no destination ID 2	0-n	Number	30
39	Destination ID 3	MMSI number of third destination of this ACK; should be omitted if no destination ID 3	0-n	Number	30
40	Destination ID 4	MMSI number of fourth destination of this ACK; should be omitted if no destination ID 4	0-n	Number	30
41	Destination indicator	0 = Broadcast (no Destination ID field used) 1 = Addressed (Destination ID uses 30 data bits for MMSI)	1-n	ENUM	1
42	DGNSS data word	DGNSS message data words excluding parity	0-1	varch2	N = 24
43	Dimension of ship/reference for position	Dimensions of ship in metres and reference point for reported position. For SAR aircraft, the use of this field may be decided by the responsible administration. If used it should indicate the maximum dimensions of the craft. As default should A = B = C = D be set to "0".	1	Number	30
44	Dimension of ship/reference for position Provided by Message 24B	Dimensions of ship in metres and reference point for reported position	1-n	Number	30
45	Dimension/ reference for position	Reference point for reported position; also indicates the dimension of an AtoN (m), if relevant	1	Number	30
46	DTE	Data terminal ready (0 = available 1 = not available = default)	1-n	date	1
47	ETA	Estimated time of arrival; MMDDHHMM UTC Bits 19-16: month; 1-12; 0 = not available = default Bits 15-11: day; 1-31; 0 = not available = default Bits 10-6: hour; 0-23; 24 = not available = default Bits 5-0: minute; 0-59; 60 = not available = default	1	date-time	20
48	Health	Reference station health (specified in Recommendation ITU-R M.823)	0-1	ENUM	3
49	ID	MMSI number	1	Number	30
50	IMO number	0 = not available = default - Not applicable to SAR aircraft 000000001-000099999 not used 000100000-000999999 = valid IMO number; 001000000-1073741823 = official flag state number	1	varch2	30
51	Increment 1	Increment to repeat reservation block 1; 0 = one reservation block per frame	1	Number	11
52	Increment 2	Increment to repeat reservation block 2 (optional)	0-1	Number	11
53	Increment 3	Increment to repeat reservation block 3 (optional)	0-1	Number	11
54	Increment 4	Increment to repeat reservation block 4 (optional)	0-1	Number	11
55	Increment A	Increment to next assigned slot	1	Number	10
56	Increment B	Increment to next assigned slot(1). Should be omitted, if there is assignment to station A, only	0-1	Number	10
57	Latitude	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91° (3412140h) = not available = default)	1-n	Number	27
58	Latitude	Latitude in 1/10 000 min of an AtoN (±90°, North = positive, South = negative 91° (3412140h) = not available = default)	1-n	Number	27
59	Latitude	Latitude in 1/10 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement) 91° (D548h) = position older than 6 hours or not available = default)	1-n	Number	17
60	Latitude	Surveyed latitude of DGNSS reference station in 1/10 min (±90°, North = positive, South = negative). If interrogated and differential correction service not available, the latitude should be set to 91°	1-n	Number	17
61	Latitude 1	Latitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (±90°, North = positive, South = negative)	1	Number	17
62	Latitude 1, (or 12 least significant bits (LSBs) of addressed station ID 1)	Latitude of area to which the assignment applies; upper right corner (North-East); in 1/10 min, or 12 LSBs of addressed station ID 1, followed by 5 zero bits (±90°, North = positive, South = negative) 91° = not available	1	Number	17
63	Latitude 2	Latitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min (±90°, North = positive, South = negative)	1	Number	17
64	Latitude 2, (or 12 LSBs of addressed station ID 2)	Latitude of area to which the assignment applies; lower left corner (South-West); in 1/10 min, or 12 LSBs of addressed station ID 2, followed by 5 zero bits (±90°, North = positive, South = negative)	1	Number	17
65	Latitude Provided by Message 18	Latitude in 1/10 000 min (±90°, North = positive (as per 2's complement), South = negative (as per 2's complement); 91° (3412140h) = not available = default)	1-n	Number	27
66	Longitude	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28
67	Longitude	Longitude in 1/10 000 min of position of an AtoN (±180°, East = positive, West = negative 181° (6791AC0h) = not available = default)	1-n	Number	28
68	Longitude	Longitude in 1/10 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement) 181° (1A838h) = position older than 6 hours or not available = default)	1-n	Number	18
69	Longitude	Surveyed longitude of DGNSS reference station in 1/10 min (±180°, East = positive, West = negative). If interrogated and differential correction service not available, the longitude should be set to 181°	1-n	Number	18
70	Longitude 1	Longitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (±180°, East = positive, West = negative)	1	Number	18
71	Longitude 1, (or 18 most significant bits (MSBs) of addressed station ID 1)	Longitude of area to which the assignment applies; upper right corner (North-East); in 1/10 min, or 18 MSBs of addressed station ID 1 (±180°, East = positive, West = negative) 181° = not available	1	Number	18
72	Longitude 2	Longitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min (±180°, East = positive, West = negative)	1	Number	18
73	Longitude 2, (or 18 MSBs of addressed station ID 2)	Longitude of area to which the assignment applies; lower left corner (South-West); in 1/10 min, or 18 MSBs of addressed station ID 2 (±180°, East = positive, West = negative)	1	Number	18
74	Longitude Provided by Message 18	Longitude in 1/10 000 min (±180°, East = positive (as per 2's complement), West = negative (as per 2's complement); 181° (6791AC0h) = not available = default)	1-n	Number	28
75	Maximum number of bits	Occupies up to 1 slot subject to the length of sub-field message content Class B "CS" mobile AIS stations should not transmit	1-n	Number	max 168
76	Maximum number of bits	Occupies up to 3 slots, or up to 5 slots when able to use FATDMA reservations. For Class B "SO" mobile AIS stations the length of the message should not exceed 3 slots. Class B "CS" mobile AIS stations should not transmit	1-n	Number	Maximum 1064
77	Maximum present static draught	In 1/10 m, 255 = draught 25.5 m or greater, 0 = not available = default; in accordance with IMO Resolution A.851 Not applicable to SAR aircraft, should be set to 0	1	Number	8
78	Message ID_16	Identifier for Message 16; Always 16	1-n	ENUM	6
79	Message ID_1_2_3	Identifier for this Message 1, 2 or 3	1-n	ENUM	6
80	Message ID_10	Identifier for Message 10; always 10	1-n	ENUM	6
81	Message ID_12	Identifier for Message 12; always 12	1-n	ENUM	6
82	Message ID_14	Identifier for Message 14; always 14	1-n	ENUM	6
83	Message ID_15	Identifier for Message 15; always set to 15	1-n	ENUM	6
84	Message ID_17	Identifier for Message 17; always 17	1-n	ENUM	6
85	Message ID_18	Identifier for Message 18; always 18	1-n	ENUM	6
86	Message ID_19	Identifier for Message 19; always 19	1-n	ENUM	6
87	Message ID_20	Identifier for Message 20; always 20	1-n	ENUM	6
88	Message ID_21	Identifier for Message 21	1-n	ENUM	6
89	Message ID_22	Identifier for Message 22; always 22	1-n	ENUM	6
90	Message ID_23	Identifier for Message 23; always 23	1-n	ENUM	6
91	Message ID_24	Identifier for Message 24; always 24	1-n	ENUM	6

DATA MAPPING AIS SYSTEM UNIQUE

ID	Group/Element Name	Description	Occ.	Type	Length (bit)
180	Time stamp	UTC second when the report was generated by the electronic position system (EPFS) (0-59, or 60 if time stamp is not available, which should also be the default value, or 61 if positioning system is in manual input mode, or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6
181	Time stamp	UTC second when the report was generated by the EPFS (0-59 or 60 if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative) 61, 62, 63 are not used by "CS" AIS	1-n	ENUM	6
182	Time stamp Provided by Message 18	UTC second when the report was generated by the EPFS (0-59 or 60) if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode, or 63 if the positioning system is inoperative)	1-n	ENUM	6
183	Time-out 1	Time-out value in minutes; 0 = not available	1	Number	3
184	Time-out 2	Time-out value in minutes (optional)	0-1	Number	3
185	Time-out 3	Time-out value in minutes (optional)	0-1	Number	3
186	Time-out 4	Time-out value in minutes (optional)	0-1	Number	3
187	Transitional zone size	The transitional zone size in nautical miles should be calculated by adding 1 to this parameter value. The default parameter value should be 4, which translates to 5 nautical miles	1	Number	3
188	Transmission control for long-range broadcast message	0 = default - Class-A AIS station stops transmission of Message 27 within an AIS base station coverage area. 1 = Request Class-A station to transmit Message 27 within an AIS base station coverage area. Base station coverage area should be defined by Message 23; If Message 23 is not received, the AIS station which is allowed to transmit on CH75 and 76 should ignore this bit and transmit Message 27.	1-n	boolean	1
189	True heading	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9
190	True heading Provided by Message 18	Degrees (0-359) (511 indicates not available = default)	1-n	Number	9
191	Tx/Rx mode_4bit	0 = Tx A/Tx B, Rx A/Rx B (default) 1 = Tx A, Rx A/Rx B 2 = Tx B, Rx A/Rx B 3-15: not used When the dual channel transmission is suspended by Tx/Rx mode command 1 or 2, the required reporting interval should be maintained using the remaining transmission channel	1-n	ENUM	4
192	Tx/Rx mode_2bit	This parameter commands the respective stations to one of the following modes: 0 = TxA/TxB, RxA/RxB (default); 1 = TxA, RxA/RxB, 2 = TxB, RxA/RxB, 3 = reserved for future use	1-n	ENUM	2
193	Type of aids-to-navigation	0 = not available = default; refer to appropriate definition set up by IALA	1	ENUM	5
194	Type of electronic position fixing device	0 = Undefined (default) 1 = GPS 2 = GLONASS 3 = Combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = Integrated Navigation System 7 = surveyed. For fixed AtoN and virtual AtoN, the charted position should be used. The accurate position enhances its function as a radar reference target 8 = Galileo 9-14 = not used 15 = internal GNSS Use of alternative corrections is deemed by user position accuracy above.	1-n	ENUM	4
195	Type of electronic position fixing device	0 = undefined (default) 1 = global positioning system (GPS) 2 = GNSS (GLONASS) 3 = combined GPS/GLONASS 4 = Loran-C 5 = Chayka 6 = integrated navigation system 7 = surveyed 8 = Galileo 9-14 = not used 15 = internal GNSS	1-n	ENUM	4
196	Type of electronic position fixing device Provided by Message 24B	0 = Undefined (default); 1 = GPS, 2 = GLONASS, 3 = combined GPS/GLONASS, 4 = Loran-C, 5 = Chayka, 6 = integrated navigation system, 7 = surveyed; 8 = Galileo, 9-14 = not used, 15 = internal GNSS	1-n	ENUM	4
197	Type of ship and cargo type	0 = not available or no ship = default 1-99 = defined 100-199 = reserved, for regional use 200-255 = reserved, for future use Not applicable to SAR aircraft	1-n	ENUM	8
198	Type of ship and cargo type Provided by Message 24B	0 = not available or no ship = default 1-99 = as defined in 100-199 = reserved, for regional use 200-255 = reserved, for future use	1-n	ENUM	8
199	User ID	MMSI number	1-n	Number	30
200	UTC day	1-31; 0 = UTC day not available = default	1-n	Number	5
201	UTC hour	0-23; 24 = UTC hour not available = default; 25-31 not used	1-n	Number	5
202	UTC minute	0-59; 60 = UTC minute not available = default; 61-63 not used	1-n	Number	6
203	UTC month	1-12; 0 = UTC month not available = default; 13-15 not used	1-n	Number	4
204	UTC second	0-59; 60 = UTC second not available = default; 61-63 not used	1-n	Number	6
205	UTC year	1-9999; 0 = UTC year not available = default	1-n	Number	14
206	Vendor ID	Unique identification of the Unit by a number as defined by the manufacturer (option; "#####" = not available = default)	1	Number	42
207	Virtual AtoN flag	0 = default = real AtoN at indicated position; 1 = virtual AtoN, does not physically exist	1	boolean	1
208	Z count	Time value in 0.6 s (0-3 599.4)	0-1	Number	13

Legend

LEGEND

occurrence	legend
1	mandatory element
1-n	mandatory element. The element can appear more than once
0-1	optional element. The element can appear only one time
0-n	optional element. The element can appear more than once

Type	legend
varchar2	string variable-length data
number	Number
boolean	boolean valure - True False o 0 1.
date	Date - format (DD/MM/YYYY)
date-time	Date_Time - format (DD/MM/YYYY_HH:MI)
ENUM	varchar2 which can assume a default value list
pdf	pdf. Annex document