ANNEX 20

RESOLUTION MSC.332(90) (adopted on 22 May 2012)

ADOPTION OF AMENDMENTS TO THE EXISTING MANDATORY SHIP REPORTING SYSTEM "IN THE STOREBÆLT (GREAT BELT) TRAFFIC AREA (BELTREP)"

THE MARITIME SAFETY COMMITTEE,

RECALLING article 28 (b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO regulation V/11 of the International Convention for the Safety of Life at Sea, 1974 (SOLAS Convention), in relation to the adoption of mandatory ship reporting systems by the Organization,

RECALLING FURTHER resolution A.858(20) resolving that the function of adopting ship reporting systems shall be performed by the Committee on behalf of the Organization,

TAKING INTO ACCOUNT the guidelines and criteria for ship reporting systems adopted by resolution MSC.43(64), as amended by resolutions MSC.111(73) and MSC.189(79),

HAVING CONSIDERED the recommendations of the Sub-Committee on Safety of Navigation, at its fifty-seventh session,

1. ADOPTS, in accordance with SOLAS regulation V/11, the amendments to the existing mandatory ship reporting system "In the Storebælt (Great Belt) traffic area (BELTREP)";

2. DECIDES that the said amended mandatory ship reporting system "In the Storebælt (Great Belt) traffic area (BELTREP)" will enter into force at 0000 hours UTC on 1 July 2013;

3. REQUESTS the Secretary-General to bring this resolution and its annex to the attention of the Member Governments and Contracting Governments to the 1974 SOLAS Convention.

ANNEX

MANDATORY SHIP REPORTING SYSTEM "IN THE STOREBÆLT (GREAT BELT) TRAFFIC AREA (BELTREP)"

1 Categories of ships required to participate in the system

1.1 Ships passing through or proceeding to and from ports and anchorages in the BELTREP area are required to participate in the ship reporting system as follows:

- 1.1.1 ships with a gross tonnage of 50 and above;
- 1.1.2 all ships with an air draught of 15 m or more; and
- 1.1.3 pleasure craft with a length less than 15 m or with a gross tonnage less than 50 are exempted from participation.

2 Geographical coverage of the system and the number and edition of the reference chart used for delineation of the system

2.1 The mandatory ship reporting system BELTREP is operated by Great Belt VTS. The call sign is "Belt Traffic".

2.2 The operational area of BELTREP covers the central and northern part of the Storebælt (Great Belt) and the Hatter Barn area north of Storebælt (Great Belt) at the entrance to the Baltic Sea, as shown below and on the chartlet given in appendix 1-A. The area includes the routeing systems at Hatter Barn, in the Storebælt (Great Belt) area and Langelandsbælt, all adopted by the Organization. The BELTREP area also includes the central part of route Tango. Datum; World Geodetic System 1984 (WGS 84):

2.2.1 <u>Report- and borderline West (RW)</u>

Fyn: Samsø:	1) 2)	55° 36'.00 N, 010° 38'.00 E (Korshavn) 55° 47'.00 N, 010° 38'.00 E (East coast of Samsø)				
2.2.2 <u>Report- and borderline North (RN)</u>						
Samsø:	2) 3)	55° 47′.00 N, 010° 38′.00 E (East coast of Samsø) 56° 00′.00 N, 010° 56′.00 E (At sea near Marthe Flak)				
Sjælland:	4)	56° 00′.00 N, 011° 17′.00 E (Sjællands Odde)				
2.2.3 <u>Report- and borderline South (RS)</u>						
Stigsnæs: Omø:	5) 6) 7)	55° 12′.00 N, 011° 15′.40 E (Gulfhavn) 55° 08′.40 N, 011° 09′.00 E (Ørespids, Omø) 55° 05′.00 N, 011° 09′.00 E (At sea south of Ørespids)				
Langeland E:	8)	55° 05'.00 N, 010° 56'.10 E (Snøde Øre)				
2.2.4 Report- and borderline Southwest (RSW)						
Langeland W: Thurø Rev: 1	9) IO)	55° 00′.00 N, 010° 48′.70 E (South of Korsebølle Rev) 55° 01′.20 N, 010° 44′.00 E (Thurø Rev Light buoy)				

2.2.5 <u>Sector division</u>

The BELTREP area is divided into two sectors at latitude 11) 55°35'.00 N; sector 1 northerly and sector 2 southerly. Each sector has an assigned VHF channel as shown in appendix 2.

2.3 The reference charts (Datum: World Geodetic System 1984, WGS 84), which include the operational area of BELTREP, are Danish charts nos. 112 (15th edition 2010), 128 (10th edition 2009), 141 (21st edition 2010), 142 (18th edition 2010), 143 (19th edition 2009) and 160 (7th edition 2007).

3 Format, content of reports, times and geographical positions for submitting reports, authority by whom reports should be sent and available services

3.1 *Procedures of reporting*

3.1.1 All BELTREP reports must be made to Great Belt VTS using VHF voice transmissions. However, ships are encouraged to fulfil certain reporting requirements of the reporting system by the use of correct and updated AIS information (Automatic Identification System) class A as approved by the Organization and by non-verbal means as e-mail or similar, prior to entering the ship reporting area. Details are given in appendix 3.

3.1.2 The use of correct and updated AIS information can accomplish the reporting requirements for designators A, B, C, E, F, G and I, O and W. Details are given in appendix 3.

3.1.3 To minimize the time reporting on the VHF radio channels and to avoid interference with essential navigational duties, ships are encouraged to forward the reporting requirements for designators L, P, T and X by e-mail or similar prior to entering the ship reporting area. Such non-verbal partial reports must also state designators A and H. Reporting designators L, P, T and X prior to entry using mobile phone is also accepted as a means of communication. Details are given in subparagraph 3.5 and appendix 3.

3.1.4 A ship which fulfils the reporting requirements of the BELTREP mandatory ship reporting system by the use of correct and updated AIS information and prior non-verbal means must, as a minimum, carry out a VHF voice transmission to communicate the name of the ship (part of designator A), air draught and deadweight tonnage (designator U) and the report line of entry to the Great Belt VTS when actually entering the area. The same procedure must be followed before departing a port or leaving an anchorage in the BELTREP area. Details are given in appendix 3.

3.1.5 Designator Q or R, if applicable, shall at all times be given using VHF voice transmission to Great Belt VTS. Details are given in appendix 3.

3.2 Verbal reporting is not required when a ship passes the BELTREP sector line at latitude 55° 35'.00 N. However, sector change of VHF frequency is required according to appendix 2.

3.3 Format

3.3.1 The mandatory ship report shall be drafted in accordance with the format shown in appendix 3. The information requested from ships is derived from the Standard Reporting Format shown in paragraph 2 of the appendix to resolution A.851(20).

3.4 Content

3.4.1 A report from a ship to BELTREP by AIS, non-verbal means or by voice transmission or combinations thereof must contain the following information; details are given in appendix 3:

- A name of the ship, call sign, MMSI no. and, if available, IMO identification number;
- B date and time;
- C position expressed in latitude and longitude;
- E true course;
- F speed;
- G and I last port of call, destination and ETA;
- H date, time (UTC) and report line of entry into the BELTREP area;
- L route information on the intended route through the BELTREP area;
- O maximum present draught;
- P cargo and, if dangerous goods present on board, quantity and IMO class. Dangerous goods information must be summarized in total tonnes per IMO class;
- Q or R defects, deficiencies, limitations pollution or dangerous goods lost overboard;
- T address for the communication of cargo information;
- U air draught, deadweight tonnage;
- W total number of persons on board; and
- X type and estimated quantity of bunker fuel, for ships of 1,000 GT and above. Must be summarized in total tonnes per type.

Note:

a) The master of the ship must forthwith inform the Great Belt VTS concerned of any change in navigational status or in previous information notified, particularly in relation to designator Q or R.

3.5 Geographical position for submitting reports

3.5.1 Ships entering the BELTREP operational area shall submit a report when crossing the report line or on departure from a port or anchorage within the operational area.

3.5.2 Previously forwarded reports can be submitted at any time after entering the Danish Exclusive Economic Zone (EEZ) and until in reach of VHF range of Great Belt VTS at an approximate distance of 20 NM from the BELTREP area. As the Great Belt VTS must be able to timely handle incoming prior reporting, it will not be possible to undertake pre-entry reports within the 20 NM VHF range. The reporting option is then verbal reporting by VHF when crossing the report line of entry. Details of areas are shown on the chartlet in appendix 1-B. The Danish EEZ border lines are shown in nautical charts.

3.5.3 Ships departing a port or leaving an anchorage within the 20 NM range of the BELTREP area or in the BELTREP area, may submit a pre-entry report for designators H, L, P, T and X if transmitted one hour before departure for enabling the Great Belt VTS to timely handle incoming prior reports.

3.6 Crossing traffic

3.6.1 Ferries frequently cross route Tango in sector 1, including high-speed ferries. The ferries generally operate according to published schedules; special reporting arrangements can be authorized.

3.7 *Authority*

The Admiral Danish Fleet is the VTS Authority for Great Belt VTS which operates the BELTREP system with call sign "Belt Traffic". Details in appendix 2.

4 Information to be provided to ships and procedures to be followed

4.1 Ships are required to keep a continuous listening watch in the BELTREP area on the relevant VHF sector channels and VHF channel 16.

4.2 Great Belt VTS will provide information service to ships about specific and urgent situations which could cause conflicting traffic movements as well as other information concerning safety of navigation, for instance, information about weather, current, ice, water level, navigational problems or other hazards.

4.2.1 Information of general interest to ships in the area will be broadcast by the Great Belt VTS on VHF channel as specified by the VTS operator or will be given upon request. A broadcast will be preceded by an announcement on VHF channel 16 and sector channels. All ships navigating in the area should listen to the announced broadcast.

4.2.2 If necessary, Great Belt VTS can provide individual information to a ship particularly in relation to positioning or local conditions.

4.2.3 If deemed necessary by the Great Belt VTS or upon request of a ship, navigational assistance can be provided. Great Belt VTS will inform the identifiable ship when the navigational assistance starts and subsequently terminates.

4.2.4 The following IMO Standard Marine Communication Phrases (SMCP), section A1/6, for VTS message markers can be used: ADVICE, WARNING, INFORMATION, QUESTION, ANSWER, REQUEST and INTENTION.

4.3 If a ship needs to anchor due to breakdown, low visibility, adverse weather, changes in the indicated depth of water, etc., Great Belt VTS can recommend suitable anchorages or other places of refuge within the operational area. The anchorages in the vicinity of the Storebælt (Great Belt) bridges are marked on the nautical charts covering the area and are shown on the chartlet in appendix 1-A.

5 Communication required for the BELTREP system

5.1 The language used for communication shall be English, using IMO Standard Marine Communication Phrases, when deemed necessary by Great Belt VTS.

5.2 Ship-to-ship communication of navigational intentions should be carried out on the BELTREP working channels enabling the Great Belt VTS and other ships to be kept informed.

5.3 Details of communication and contact information are given in appendix 2.

6 Rules, regulations and recommendation in force in the area of the system

6.1 *Regulation for preventing collisions at sea*

The International Regulations for Preventing Collisions at Sea (COLREGs) are applicable throughout the operational area of BELTREP.

6.2 Traffic separation scheme "At Hatter Barn" (TSS-T5)

6.2.1 The separation scheme, "At Hatter Barn", is situated in Samsø Bælt north of the Storebælt (Great Belt) between the islands of Sjælland and Samsø. It has been adopted by IMO and rule 10 of the International Regulations for Preventing Collisions at Sea applies.

6.2.2 The minimum depth in the traffic separation scheme is 15 metres at mean sea level. Ships with a draught of more than 13 metres should use the deep-water route "Between Hatter Rev and Hatter Barn", which lies northwest of the traffic separation scheme.

6.3 Deep-water route "Between Hatter Rev and Hatter Barn" (DW-T3)

6.3.1 The IMO-adopted deep-water route "Between Hatter Rev and Hatter Barn" has a minimum depth of water below mean sea level of 19 metres. Ships which are not obliged by reason of their draught (13 metres or less) to use the deep-water route should use the traffic separation scheme which lies southeast of the deep-water route, where there is a minimum depth of water below mean sea level of 15 metres.

6.3.2 Ships should be aware that other ships sailing in the deep-water route can be constrained by draught and exhibit signals according to COLREGs.

6.4 Traffic separation scheme "Between Korsoer and Sprogoe" (TSS-T6)

6.4.1 The traffic separation scheme "Between Korsoer and Sprogoe", situated in the narrows of the Eastern Channel in Storebælt (Great Belt) between the islands of Fyn and Sjælland, have been adopted by the IMO, and rule 10 of the International Regulations for Preventing Collisions at Sea applies.

6.4.2 The minimum free water depth in the northbound traffic lane is 17 metres and in the southbound traffic lane, 19 metres, both below mean sea level.

6.4.3 There is a recommended speed limit of 20 knots in the traffic separation scheme.

6.5 The Great Belt Bridges – Safety regulations

6.5.1 Passage through the marked spans at the West Bridge (a combined road and rail bridge), is allowed only for ships below 1,000 tonnes deadweight and with an air draught of less than 18.00 metres. This passage has route designator BW.

6.5.2 Passage through the traffic separation scheme under the East Bridge (a suspension bridge for road traffic), is allowed only for ships with an air draught of less than 65.00 metres. This passage has route designator BE and includes route T.

6.6 Deep-water route "Off the east coast of Langeland" (DW-T4)

6.6.1 The deep-water route "*Off the east coast of Langeland*" has a minimum depth of water below mean sea level of 19 metres. Ships with draughts in excess of 10 metres are recommended to use the deep-water route because of navigational difficulties for such ships in following the national recommended route Hotel which lies to the east of the deep-water route.

6.6.2 Ships should be aware that other ships sailing in the deep-water route can be constrained by draught and exhibit signals according to COLREGs.

6.7 Route Hotel

6.7.1 East of the deep-water route "Off the east coast of Langeland", the national route H is established, which has a minimum depth of 12 metres below mean sea level. Ships with a draught of 10 metres or less should follow route H.

6.8 IMO Recommendation on Navigation through the entrances to the Baltic Sea

6.8.1 The recent amendment of the IMO Recommendation on Navigation through the entrances to the Baltic Sea was adopted by MSC in October 2007 and promulgated in SN.1/Circ.263, section 1.9 and is given in the IMO publication Ships' Routeing, Part C. It recommends, among other things, that ships with a draught of 11 metres or more navigating route T or ships, irrespective of size or draught carrying a shipment of irradiated nuclear fuel, plutonium or high-level radioactive wastes (INF-cargoes), should use the pilotage services established locally by the coastal States for passing ships.

6.8.2 Ship masters should, in due time, when planning the passage, carefully note the content as regards route Tango in the IMO Recommendation on Navigation through the entrances to the Baltic Sea.

6.9 *Mandatory pilotage*

6.9.1 Harbours within the BELTREP area are covered by provisions on the subject of mandatory pilotage for certain ships bound for or coming from Danish harbours.

7 Shore-based facilities to support the operation of the system

7.1 System capability

7.1.1 The VTS centre is situated at the Naval Logistic Support Regional Centre at Korsør. The VTS system comprises several remote sensor sites. The sites provide surveillance of the VTS area using a combination of radar, radio direction finding, Automatic Identification System (AIS) and electro-optic sensors. An integrated network system of eight radar sensors integrated with AIS provides surveillance of the VTS area.

7.1.2 All the sensors mentioned will be controlled or monitored by the VTS operators.

7.1.3 There are a number of operator consoles in the control centre, one of which is intended for system maintenance and diagnostic purposes, which allows these activities to be carried out without disruption of normal operations. The operator can from each of the consoles control and display the status of the sensors. The VTS centre will, at all times, be manned with a duty officer and three operators.

7.1.4 Recording equipment automatically stores information from all tracks which can be replayed. In case of incidents, the VTS authority can use records as evidence. VTS operators have access to different ship registers, pilot information and hazardous cargo data.

7.2 Radar, electro-optic facilities and other sensors

7.2.1 Information necessary to evaluate the traffic activities within the operational area of BELTREP is compiled via VTS area remote controlled sensors comprising:

- high-resolution radar systems;
- infra-red sensor systems;
- daylight TV systems;
- VHF communications systems; and
- DF systems.

7.3 *Radio communication facilities*

7.3.1 Radio communication equipment in the VTS centre consists of six VHF radios, including DSC facilities. The VHF channels used are given in appendix 2.

7.4 AIS facilities

7.4.1 BELTREP is linked to the national shore-based AIS network and can continually monitor AIS information on ships such as identity and position. The information is displayed as part of the VTS system and covers the VTS area.

7.5 Personnel qualifications and training

7.5.1 The VTS centre is staffed with civilian personnel, all experienced, as officers at a competency level required in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, chapter II, section A-II/1 or A-II/2.

7.5.2 Training of personnel will meet the standards recommended by the IMO. Furthermore, it will comprise an overall study of the navigation safety measures established in Danish waters and, in particular, the operational area of BELTREP, including a study of relevant international and national provisions with respect to safety of navigation. The training also includes real-time training in simulators.

7.5.3 Refresher training is carried out at least every third year.

8 Information concerning the applicable procedures if the communication facilities of the shore-based Authority fail

8.1 The system is designed with sufficient system redundancy to cope with normal equipment failure.

8.2 In the event that the radio communication system or the radar system at the VTS centre breaks down, communication will be maintained via a standby VHF system. To continue the VTS operation in order to avoid collisions in the bridge area, Great Belt VTS has an emergency back-up VTS centre at Sprogø covering sector 2. The VTS emergency centre is equipped with radar, VHF radio sets and CCTV cameras.

8.3 If the radar system or other essential equipment suffers a breakdown, information of reduced operational capability will be given by Great Belt VTS or broadcast as national navigational warnings.

9 Measures to be taken if a ship fails to comply with the requirements of the system

9.1 The objective of Great Belt VTS is to facilitate the exchange of information between the ship and the shore in order to ensure safe passages of the bridges, support safety of navigation and protect the marine environment.

9.2 Great Belt VTS seeks to prevent ship collisions with the bridges crossing Storebælt (Great Belt). If a ship appears to be on a collision course with one of the bridges, Great Belt VTS will arrange for an emergency stop for road and rail traffic on the bridges.

9.3 All means will be used to encourage and promote the full participation of ships required to submit reports under SOLAS regulation V/11. If reports are not submitted or contraventions are made of the safety regulations in sections 6.5.1 and 6.5.2 for passing the bridges and the offending ship can be positively identified, then information will be passed to the relevant flag State Authority for investigation and possible prosecution in accordance with national legislation. Information will also be made available to port State Control inspectors.

Appendix 1-A



Appendix 1-B



Pre-entry reporting areas – Danish EEZ

Appendix 2

Contact information and assigned VHF channels for sectors in the mandatory ship reporting system "BELTREP"

VHF Channels	Operational use				
VHF Channel 74	Great Belt VTS – Sector 1 North				
VHF Channel 11	Great Belt VTS – Sector 2 South				
VHF Channel 10	Great Belt VTS – Broadcast, individual assistance, reserve channel				
VHF Channel 16	Great Belt VTS – Continuous monitoring				

The Great Belt VTS operating BELTREP is located in Korsør at the bridge area:

H24 contact information:

- 1) Great Belt VTS is monitoring VHF channels 74, 11 and 16 continuously.
- 2) Duty officer phone: +45 58 37 68 68
- 3) Fax: +45 58 37 28 19
- 4) MMSI: 002190001
- 5) E-mail: beltrep@sok.dk Web page: www.beltrep.org

Address:

Great Belt VTS Sylowsvej 8 DK – 4220 Korsør Denmark

Appendix 3

Drafting of reports to the mandatory ship reporting system "BELTREP"

Summary:

Reporting is to be done by VHF, but can also be accomplished partly by the use of AIS and pre-entry non-verbal means as, e.g. e-mail.

- Correct and updated AIS information can accomplish reporting of designators A, B, C, E, F, G and I, O and W.
- Non-verbal means can accomplish reporting of designators (A, H), L, P, T and X.
- VHF must as a minimum be used for accomplishing designators A (part of) and U.

The scheme below gives the optimal use of reporting combined by AIS, non-verbal and VHF.

1	2	3	4	5	6
Designator	AIS	Non-verbal (e.g. e-mail)	VHF	Function	Information required
A	Yes	Yes	Yes	Ship	 Name of ship: AIS, non-verb, VHF MMSI number: AIS Call sign: AIS – and when available – IMO number: AIS, non-verbal
В	Yes	-	-	Date and time	A 6-digit group event giving day of month and hours and minutes in Universal Coordinated Time (UTC).
С	Yes	-	-	Position	A 5-digit group giving latitude in degrees and minutes, decimal, suffixed with N and a 6-digit group giving longitude in degrees and minutes, decimal, suffixed with E.
E	Yes	-	-	True course	A 3-digit group
F	Yes	-	-	Speed in knots and tenths of knots	A 3-digit group
G and I	Yes	-	-	Last port of call Destination and ETA	The name of last port of call and next port of call; both given in UN LOCODE by AIS. For details and procedures see IMO SN/Circ.244 and www.unece.org/cefact/locode/service/main. htm. ETA date and time group expressed as in (B)
н	-	Yes	-	Date, time (UTC) and report line of entry into the BELTREP area	This information is <u>only</u> required if reporting designators L, P, T and X are transmitted non-verbally (e.g. e-mail) prior to entry of the BELTREP

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1	2	3	4	5	6
Designator	AIS	Non-verbal (e.g. e-mail)	VHF	Function	Information required
L	-	Yes	-	Route information in the BELTREP area	A brief description of the intended route in the BELTREP area as planned by the master and stated by coded designators as given below (see also chartlet in Appendix 1-A for references): <u>Report lines:</u> RN – report line North RW – report line West RS – report line South RSW – report line South RSW – report line Southwest <u>Routeing systems:</u> DW-T3 – Deep-water Hatter TSS-T5 – Separation At Hatter Barn <u>Bridges:</u> BE – East bridge/Route T BW – West bridge <u>Routeing system:</u> DW-T4 – Deep-water Langeland <u>Route:</u> RH – Route Hotel <u>Anchorage – Kalundborg Fjord</u> KAL FJ See examples below.
о	Yes	-	-	Maximum present draught in metres	A 2-digit or 3-digit group giving the present maximum draught in metres (e.g. 6.1 or 10.4).
Р	-	Yes	-	Cargo on board	Cargo and, if dangerous goods present on board, quantity and IMO class. Dangerous goods information must be summarized in total tonnes per IMO class when transmitted.
Q or R	-	-	Yes	Defects and deficiencies Pollution or dangerous goods overboard	 Q: Details of defects and deficiencies affecting the equipment of the ship or any other circumstances affecting normal navigation and manoeuvrability. R: Pollution or dangerous goods lost overboard.
т	-	Yes	-	Ship's representative and/or owner	Address and particulars from which detailed information on the cargo may be obtained.
U	-	-	Yes	Ship's size	Information of maximum air draught and deadweight tonnage, required for all ships, including ship's tow or other floating equipment. This information shall be given by voice transmissions when entering the BELTREP area, irrespective of whether the information has also been given by, e.g. non-verbal means.

1	2	3	4	5	6
Designator	AIS	Non-verbal (e.g. e-mail)	VHF	Function	Information required
w	Yes	-	-	Total number of persons on board	State number
x	-	Yes	-	Miscellaneous	Type and estimated quantity of bunker fuel, for ships of 1,000 gross tonnage and above. Must be summarized in total tonnes per type when transmitted.

Examples of reporting route, coded in the format as given under designator L

- 1) A northbound ship leaving the port of Gulfhavn planning to sail north route T via deep-water route "Between Hatter Rev and Hatter Barn" leaving at report line North (UN LOCODE format for Gulfhavn is DK GFH):
- L: DK GFH, BE, DW-T3, RN
- 2) A southbound ship in passage and planning to enter at report line North, sailing through TSS "At Hatter Barn", then route T, route H and leaving at report line South:
- L: RN, TSS-T5, BE, RH, RS
- 3) A northbound ship entering via deep-water route "Off the east coast of Langeland", route Tango, East Bridge and leaving through report line West, bound for the port of Fredericia:
- L: RS, DW-T4, BE, RW
- 4) A ship entering at report line North sailing via TSS "At Hatter Barn", route T and then anchoring in Kalundborg fjord:
- L: RN, TSS-T5, KAL FJ
