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SN.1/Circ.336
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ROUTING MEASURES OTHER THAN TRAFFIC SEPARATION SCHEMES

1 The Maritime Safety Committee, at its ninety-ninth session (16 to 25 May 2018), adopted, in accordance with the *Procedure for the adoption and amendment of traffic separation schemes, routeing measures other than traffic separation schemes, including designation and substitution of archipelagic sea lanes, and ship reporting systems* (resolution A.858(20)), new and amended routeing measures other than traffic separation schemes, set out in the annexes, as follows:

- .1 amended areas to be avoided "Off the coast of Ghana in the Atlantic Ocean" (annex 1);
- .2 recommended directions of traffic flow within the precautionary area "Dangan Channel No. 2" (annex 2);
- .3 deep-water routes, recommended routes and precautionary area "In the vicinity of Kattegat" (annex 3); and
- .4 two-way routes, precautionary areas and areas to be avoided "In the Bering Sea and Bering Strait" (annex 4).

2 Accordingly, the new and amended routeing measures other than traffic separation schemes listed in:

- .1 subparagraphs 1.1, 1.2 and 1.4 above should be implemented on 1 December 2018; and
- .2 subparagraph 1.3 above should be implemented on 1 July 2020.

ANNEX 1

AMENDED AREAS TO BE AVOIDED
"OFF THE COAST OF GHANA IN THE ATLANTIC OCEAN"
(ref. SN.1/Circ.333, paragraph 1.3 and annex 3)

(Reference charts: British Admiralty 595, edition 3; 1383, edition 4; and 3100, edition 1.

Note: These charts are based on World Geodetic System 1984 Datum (WGS 84).)

Description of the areas to be avoided

Excepting ships authorized by the Ghana Maritime Authority, all ships should avoid following two areas within a radius of 5 nautical miles each centred on the following geographical positions:

04°32'.10 N, 002°54'.60 W;

04°35'.34 N, 003°08'.40 W; and

should avoid following area within a radius of 4 nautical miles centred on the following geographical position:

04°28'.16 N, 02°33'.20 W

ANNEX 2

RECOMMENDED DIRECTIONS OF TRAFFIC FLOW WITHIN THE PRECAUTIONARY AREA "DANGAN CHANNEL NO. 2"

(Reference charts: Chinese charts 83001 and 84001, 2nd edition, 2015.

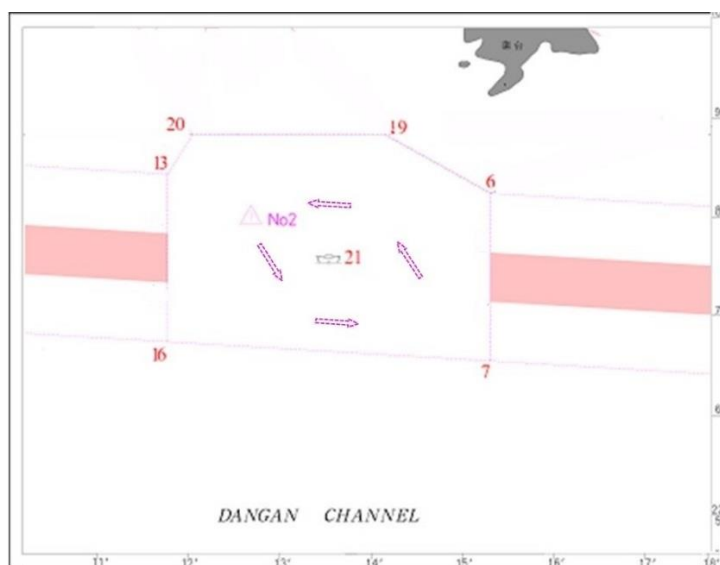
Note: These charts are based on World Geodetic System 1984 datum (WGS 84).)

Description of the recommended directions of traffic flow

The precautionary area *Dangan Channel No. 2* with recommended directions of traffic flow counter-clockwise¹ surrounding the light vessel located at (21) 22°07'.61N, 114°13'.54E is established in the Dangan Channel Traffic Separation Schemes,² formed by a line connecting the following geographical positions:

(6) 22°08'.31N, 114°15'.31E	(13) 22°08'.51N, 114°11'.77E
(19) 22°08'.91N, 114°14'.16E	(16) 22°06'.80N, 114°11'.77E
(20) 22°08'.91N, 114°12'.04E	(7) 22°06'.60N, 114°15'.31E

thence back to the point of beginning (6).



¹ See diagram attached.

² See COLREG.2/Circ.71, paragraph 1.1.

ANNEX 3

DEEP-WATER ROUTES, RECOMMENDED ROUTES AND PRECAUTIONARY AREA "IN THE VICINITY OF KATTEGAT"

(Reference chart: Danish paper chart No. 100, edition 10, October 2017; Swedish paper chart No. 92, edition 12, March 2015, issued by the Hydrographic Offices of Denmark and Sweden.

Note: These charts are based on World Geodetic System 1984 Datum (WGS 84).)

Description of the deep-water route "Kattegat North"

- (a) A deep-water route with a minimum depth of 19 metres, recommended for ships with a draught of 10 metres or more, is bounded by a line connecting the following geographical positions:

(67) 57°11'.26 N, 011°38'.89 E	(69) 56°52'.96 N, 011°46'.96 E
(68) 56°53'.59 N, 011°50'.26 E	(70) 57°10'.63 N, 011°35'.57 E

Note: Northbound traffic not restricted by their draught are recommended to use the area east of the deep-water route. Southbound traffic not restricted by their draught are recommended to use the area west of the deep-water route.

Description of the deep-water route "Kattegat South"

- (b) A deep-water route with a minimum depth of 19 metres, recommended for ships with a draught of 10 metres or more, is bounded by a line connecting the following geographical positions:

(71) 56°22'.10 N, 011°29'.14 E	(73) 56°17'.60 N, 011°23'.02 E
(72) 56°17'.26 N, 011°24'.12 E	(74) 56°22'.44 N, 011°28'.05 E

Note: Northbound traffic not restricted by their draught are recommended to use the area east of the deep-water route. Southbound traffic not restricted by their draught are recommended to use the area west of the deep-water route.

Description of the precautionary area "at Kummel Bank"

- (c) A precautionary area is established by a line connecting the following geographical positions:

(75) 57°31'.77 N, 011°27'.42 E	(78) 57°27'.01 N, 011°23'.74 E
(76) 57°27'.63 N, 011°34'.57 E	(79) 57°28'.65 N, 011°20'.95 E
(77) 57°24'.61 N, 011°25'.81 E	

Description of the recommended route A

- (d) Recommended route A is established from the west coast of Denmark off Hanstholm harbour to the traffic separation scheme "Skagen West" with a central line between the following geographical positions:

(80) 57°22'.57 N, 008°22'.32 E (82) 57°49'.48 N, 010°16'.04 E
(81) 57°48'.32 N, 009°37'.18 E (83) 57°49'.99 N, 010°33'.12 E

Description of the recommended route B

- (e) Recommended route B is established from the west coast of Denmark off Hanstholm harbour joining recommended route A described in paragraph (d) with a central line between the following geographical positions:

(84) 57°13'.26 N, 008°30'.99 E (82) 57°49'.48 N, 010°16'.04 E

Description of the recommended route T

- (f) Recommended route T, the route between Skagen and the Great Belt and recommended for:

- a) all traffic between Skagen and the Great Belt; and
b) ships with a draught of 10 metres or more proceeding to and from the entrance to the Sound,

is established:

- i between the traffic separation scheme "Skagen East" and the precautionary area "at Kummel Bank" described in paragraph (c) with a central line between the following geographical positions:

(85) 57°46'.76 N, 010°55'.70 E (86) 57°30'.26 N, 011°24'.29 E

- ii between the precautionary area "at Kummel Bank" described in paragraph (c) and the deep-water route "Kattegat North" described in paragraph (a) with a central line between the following geographical positions:

(87) 57°25'.36 N, 011°27'.98 E (88) 57°10'.95 N, 011°37'.23 E

- iii between the deep-water routes "Kattegat North" described in paragraph (a) and "Kattegat South" described in paragraph (b) with a central line between the following geographical positions:

(89) 56°53'.28 N, 011°48'.61 E (91) 56°22'.27 N, 011°28'.59 E
(90) 56°43'.70 N, 011°54'.68 E

- iv from the deep-water route "Kattegat South" described in paragraph (b) and joining the nationally implemented Route T north of the traffic separation scheme "at Hatter Barn" with a central line between the following geographical positions:

(92) 56°17'.45 N, 011°23'.52 E (93) 56°10'.48 N, 011°16'.37 E

Description of the recommended route S

(g) Recommended route S, the route between Skagen and the entrance to the Sound and recommended for ships with a draught of 10 metres or less, is established:

i between the precautionary area "at Kummel Bank" described in paragraph (c) and the traffic separation scheme "Fladen" with a central line between the following geographical positions:

(94) 57°26'.39 N, 011°30'.98 E (95) 57°14'.60 N, 011°51'.22 E

ii between the traffic separation schemes "Fladen" and "Lilla Middelgrund" with a central line between the following geographical positions:

(96) 57°13'.09 N, 011°53'.30 E (97) 56°56'.29 N, 012°03'.89 E

iii between the traffic separation schemes "Lilla Middelgrund" and "Entrance to the Sound" with a central line between the following geographical positions:

(98) 56°55'.16 N, 012°04'.59 E (49) 56°10'.92 N, 012°24'.95 E

ANNEX 4

TWO-WAY ROUTES, PRECAUTIONARY AREAS AND AREAS TO BE AVOIDED "IN THE BERING SEA AND BERING STRAIT"

(Reference charts: See table below.)

Note: All geographical positions are based on World Geodetic System 1984 Datum (WGS 84.)

Note: These routing measures are recommended for ships of 400 gross tonnage and upwards.

Description of the two-way routes and precautionary areas

Six (6) recommendatory two-way routes and six (6) precautionary areas are established in the Bering Sea and Bering Strait.

A list of the geographical coordinates of the two-way routes and precautionary areas is provided below.

(a) A precautionary area "A" is established, the waters contained within a circle of radius 4.00 miles centred at geographical position 58°45'.00 N, 167°27'.81 W.

(b) A two-way route, connecting with precautionary area "A" and precautionary area "B", is established between the following geographical positions:

- | | |
|------------------------------|--------------------------------|
| (1) 58°48'.91 N 167°26'.26 W | (7) 64°55'.19 N 168° 27'.77 W |
| (2) 60°10'.86 N 168°19'.58 W | (8) 63°29'.57 N 167° 42'.57 W |
| (3) 61°29'.47 N 167°35'.89 W | (9) 62°25'.26 N 167° 11'.99 W |
| (4) 62°25'.14 N 167°03'.13 W | (10) 61°30'.52 N 167° 43'.95 W |
| (5) 63°30'.44 N 167°33'.86 W | (11) 60°10'.74 N 168° 27'.94 W |
| (6) 64°56'.08 N 168°18'.60 W | (12) 58°47'.65 N 167° 33'.56 W |

(c) A precautionary area "B" is established, which is bounded by a line connecting the following geographical positions:

- | | |
|-------------------------------|-------------------------------|
| (6) 64°56'.08 N 168°18'.60 W | (16) 65°02'.60 N 168°37'.28 W |
| (13) 64°59'.22 N 168°20'.29 W | (17) 64°58'.14 N 168°29'.36 W |
| (14) 65°05'.00 N 168°20'.30 W | (7) 64°55'.19 N 168°27'.77 W |
| (15) 65°05'.00 N 168°29'.75 W | |

thence back to the point of beginning (6).

(d) A two-way route, connecting with precautionary area "B" and precautionary area "C", is established between the following geographical positions:

- | | |
|-------------------------------|-------------------------------|
| (14) 65°05'.00 N 168°20'.30 W | (19) 66°26'.57 N 168°29'.75 W |
| (18) 66°26'.57 N 168°20'.30 W | (15) 65°05'.00 N 168°29'.75 W |

(e) A precautionary area "C" is established, the waters contained within a circle of radius 4.00 miles centred at geographical position 66°30'.00 N, 168°25'.00 W.

- (f) A two-way route, connecting with precautionary area "C" and precautionary area "D", is established between the following geographical positions:

(20) 66°30'.64 N 168°34'.79 W	(22) 66° 20'.83 N 169°11'.21 W
(21) 66°24'.59 N 169°14'.72 W	(23) 66° 26'.90 N 168°31'.34 W

- (g) A precautionary area "D" is established, the waters contained within a circle of radius 4.00 miles centred at geographical position 66°21'.50 N, 169°21'.00 W.

- (h) A two-way route, connecting with precautionary area "D" and precautionary area "E", is established between the following geographical positions:

(24) 66°18'.05 N 169°16'.11 W	(26) 65°56'.20 N 169°25'.87 W
(25) 66°18'.05 N 169°25'.87 W	(27) 65°56'.20 N 169°16'.11 W

- (i) A precautionary area "E" is established, which is bounded by a line connecting the following geographical positions:

(26) 65°56'.20 N 169°25'.87 W	(29) 65°45'.52 N 169°25'.87 W
(27) 65°56'.20 N 169°16'.11 W	(30) 65°47'.69 N 169°34'.01 W
(28) 65°45'.52 N 169°16'.11 W	(31) 65°52'.82 N 169°25'.87 W

thence back to the point of beginning (26).

- (j) A two-way route, connecting with precautionary area "E" and precautionary area "B", is established between the following geographical positions:

(28) 65°45'.52 N 169°16'.11 W	(16) 65°02'.60 N 168°37'.28 W
(29) 65°45'.52 N 169°25'.87 W	(15) 65°05'.00 N 168°29'.75 W
(32) 65°29'.65 N 169°25'.87 W	(33) 65°30'.71 N 169°16'.11 W

- (k) A two-way route, connecting with precautionary area "E" and precautionary area "F", is established between the following geographical positions:

(29) 65°45'.52 N 169°25'.87 W	(34) 64°28'.31 N 171°36'.35 W
(30) 65°47'.69 N 169°34'.01 W	(35) 64°26'.14 N 171°28'.60 W

- (l) A precautionary area "F" is established, the waters contained within a circle of radius 4.00 miles centred at geographical position 64°24'.36 N, 171°36'.61W.

Description of the areas to be avoided

Three (3) recommendatory areas to be avoided are established in the Bering Sea.

- (m) *Nunivak Island*

An area to be avoided is established bounded by a line connecting the following geographical positions:

(1) 60° 17'.05 N 167° 37'.80 W	(4) 59° 32'.80 N 165° 28'.80 W
(2) 59° 54'.89 N 167° 40'.98 W	(5) 60° 39'.86 N 165° 41'.70 W
(3) 59° 41'.44 N 166° 49'.08 W	

thence back to point (1).

(n) *King Island*

(6) 65° 03'.12 N 168° 19'.56 W (8) 64° 53'.54 N 167° 46'.98 W
(7) 64° 51'.01 N 168° 14'.82 W (9) 65° 05'.53 N 167° 52'.92 W

thence back to point (6).

(o) *St. Lawrence Island*

(10) 63° 08'.57 N 173° 31'.02 W (14) 63° 17'.99 N 168° 12'.54 W
(11) 62° 44'.38 N 168° 58'.32 W (15) 63° 59'.95 N 171° 06'.18 W
(12) 62° 46'.14 N 168° 21'.24 W (16) 63° 54'.80 N 171° 50'.94 W
(13) 63° 01'.78 N 168° 04'.38 W

thence back to point (10).

**Reference charts
(Names, numbers and edition)**

Name	Type	Title	Producer	Nav. purpose (Scale)	Issue Date
RU2O9091	SENC	Chukchi Sea and Bearing Sea Chukotskiy Peninsula Senyavin Strait to Netten Point	DNO ¹	General 1:700000	3-12-2016
RU3O90B9	SENC	Bering Sea - Chukotskiy Peninsula – Ulakhpen Point to Penkigngey Bay	DNO	Coastal 1:180000	26-2-2011
RU3OE090	SENC	Bering Sea – Chukotskiy Peninsula Nygchigen Point to Litke Point	DNO	Coastal 1:180000	28-5-2011
RU3OH0B0	SENC	Chukchi Sea. Chukotskiy Peninsula. Dzhenretlen Point to Dezhnyoy Point.	DNO	Coastal 1:180000	7-4-2007
RU4OH1S0	SENC	Bering Sea- Bering Strait – Diomed Islands – Approaches to Ratmanov Island	DNO	Approach 1:22000	28-5-2011
US1BS03M	SENC	Bering Sea Northern Part	NOS ²	Overview 1:3500000	31-5-2017
US2AK92M	SENC	Cape Prince of Wales to Pt. Barrow	NOS	General 1:700000	3-8-2017
US2AK95M	SENC	Bering Sea-eastern part	NOS	General 1:1534076	3-8-2017
US3AK80M	SENC	Norton Sound Golovnin Bay	NOS	Coastal 1:350000	30-5-2017
US3AK89M	SENC	Bering Sea St. Lawrence Island to Bering Strait	NOS	Coastal 1:315350	30-5-2017
US4AK81M	SENC	Port Clarence and Approaches	NOS	Approach 1:100000	27-4-2016
US4AK8DM	SENC	Bering Strait North	NOS	Approach 1:100000	30-5-2017

¹ Russian Head Department of Navigation & Oceanography.

² United States Office of Coast Survey National Ocean Service, National Oceanic and Atmospheric Administration.