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COLREG.2/Circ.64  
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### **NEW AND AMENDED EXISTING TRAFFIC SEPARATION SCHEMES**

1 The Maritime Safety Committee, at its ninety-first session (26 to 30 November 2012), adopted, in accordance with the provisions of resolution A.858(20), new and amended existing traffic separation schemes listed in annexes 1, 2, 3, 4, 5, 6, 7 and 8 as follows:

- .1 "In the approaches to IJmuiden" (new scheme);
- .2 "Off Texel" (amended scheme);
- .3 "In the Approaches to Hook of Holland and at North Hinder" (amended scheme);
- .4 "Off Rodsher Island" (amended scheme);
- .5 "Off Ushant" (amended scheme), including article 3 of SN/Circ.232;
- .6 "In the Santa Barbara Channel" (amended scheme);
- .7 "Off San Francisco" (amended scheme); and
- .8 "In the Approaches to Los Angeles – Long Beach" (amended scheme).

2 The new traffic separation scheme including amended traffic separation schemes listed in subparagraphs 1.1, 1.2 and 1.3 above and detailed in annexes 1, 2 and 3 will be implemented at 0000 hours UTC on 1 August 2013, whilst the amended traffic separation schemes in subparagraphs 1.4, 1.5, 1.6, 1.7 and 1.8 above and detailed in annexes 4, 5, 6, 7 and 8 will be implemented at 0000 hours UTC on 1 June 2013.

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**ANNEX 1**  
**NEW AND AMENDED TRAFFIC SEPARATION SCHEMES**

**"IN THE APPROACHES TO IJMUIDEN"**

Reference chart Netherlands 1631 (INT 1418 edition 3)

**Note:** This chart is based on World Geodetic System 1984 datum (WGS 84)

**IJmuiden West Inner traffic separation scheme**

- (a) A separation zone to the north of the IJmuiden-geul is bounded by a line connecting the following geographical positions:

(1)	52° 29'.47 N	4° 20'.03 E	(4)	52° 30'.90 N	4° 08'.55 E
(2)	52° 29'.76 N	4° 20'.12 E	(5)	52° 30'.36 N	4° 08'.93 E
(3)	52° 30'.90 N	4° 10'.17 E	(6)	52° 30'.38 N	4° 11'.84 E

- (b) A triangular separation zone north of the IJmuiden-geul is bounded by a line connecting the following geographical positions:

(7)	52° 31'.50 N	4° 10'.60 E	(9)	52° 32'.73 N	4° 07'.26 E
(8)	52° 31'.50 N	4° 08'.13 E			

- (c) A traffic lane for westbound traffic is established between the separation zones in paragraphs (a) and (b) above and a line connecting the following geographical positions:

(16)	52° 30'.52 N	4° 20'.35 E	(17)	52° 31'.35 N	4° 13'.25 E
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- (d) A separation zone to the south of the IJmuiden-geul is bounded by a line connecting the following geographical positions:

(11)	52° 28'.70 N	4° 19'.80 E	(14)	52° 30'.04 N	4° 09'.16 E
(12)	52° 29'.23 N	4° 19'.96 E	(15)	52° 29'.87 N	4° 09'.28 E
(13)	52° 30'.06 N	4° 12'.50 E			

- (e) A traffic lane for eastbound traffic is established between the separation zone in paragraph (d) above and a line connecting the following geographical positions:

(20)	52° 27'.62 N	4° 19'.48 E	(21)	52° 28'.58 N	4° 10'.85 E
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**IJmuiden North traffic separation scheme**

- (a) A separation line extending north north-west from the small triangular separation zone in the IJmuiden Inner traffic separation scheme is established between the following geographical positions:

(9)	52° 32'.73 N	4° 07'.26 E	(10)	52° 35'.72 N	4° 05'.15 E
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- (b) A traffic lane for north north-westbound traffic is established between the separation line and the small triangular separation zone in paragraphs (a) above and (b) above and a line connecting the following geographical positions:

(17)	52° 31'.35 N	4° 13'.25 E	(19)	52° 36'.04 N	4° 06'.36 E
(18)	52° 33'.28 N	4° 08'.30 E			

- (c) A traffic lane for south south-eastbound traffic is established between the separation line and the triangular separation zone in paragraphs (a) above and (b) above and a line connecting the following geographical positions:

(31)	52° 35'.40 N	4° 03'.95 E	(32)	52° 31'.50 N	4° 06'.70 E
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### IJmuiden West outer traffic separation scheme

- (a) A separation zone to the north of the IJmuiden-geul is bounded by a line connecting the following geographical positions:

(23)	52° 30'.36 N	4° 07'.51 E	(25)	52° 30'.91 N	3° 56'.18 E
(24)	52° 30'.91 N	4° 07'.12 E	(26)	52° 30'.27 N	3° 55'.98 E

- (b) A separation zone to the south of the IJmuiden-geul is bounded by a line connecting the following geographical positions:

(27)	52° 29'.22 N	4° 08'.31 E	(29)	52° 29'.95 N	3° 55'.87 E
(28)	52° 30'.03 N	4° 07'.74 E	(30)	52° 27'.60 N	3° 55'.10 E

- (c) A traffic lane for westbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(32)	52° 31'.50 N	4° 06'.70 E	(33)	52° 31'.50 N	3° 56'.38 E
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- (d) A traffic lane for eastbound traffic is established between the separation zone in paragraph (b) above and a line connecting the following geographical positions:

(22)	52° 28'.29 N	4° 08'.97 E	(35)	52° 25'.53 N	3° 54'.43 E
(34)	52° 26'.55 N	3° 57'.50 E			

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**ANNEX 2**

**AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEME "OFF TEXEL"**

Reference chart Netherlands 1631 (INT 1418 edition 3)

**Note:** This chart is based on World Geodetic System 1984 datum (WGS 84)

**Description of the traffic separation scheme**

(a) A separation zone is bounded by a line connecting the following geographical positions:

(1) 53° 05'.42 N	004° 23'.60 E	(5) No position necessary
(2) 52° 59'.95 N	004° 17'.89 E	(6) 52° 49'.59 N 003° 58'.56 E
(3) 52° 51'.85 N	004° 12'.64 E	(7) 52° 56'.53 N 004° 00'.92 E
(4) 52° 45'.85 N	004° 05'.04 E	(8) 53° 06'.48 N 004° 20'.79 E

(b) A traffic lane for north-eastbound traffic is established between the separation zone in paragraph (a) and a line connecting the following geographical positions:

(9) 53° 03'.82 N	004° 27'.80 E	(11a) 52° 44'.60 N	004° 09'.90 E
(10) 52° 58'.60 N	004° 22'.34 E	(11b) 52° 43'.48 N	004° 09'.14 E
(11) 52° 50'.38 N	004° 17'.01 E		

(c) A traffic lane for south-westbound traffic is established between the separation zone in paragraph (a) and a line connecting the following geographical positions:

(12b) 52° 56'.67 N	003° 53'.44 E	(13) 53° 08'.17 N	004° 16'.35 E
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(d) A separation zone west of the separation zone in paragraph (a) is established and bounded by the following geographical positions:

(14) 52° 50'.60 N	003° 56'.80 E	(16) 52° 54'.31 N	003° 56'.67 E
(15) 52° 55'.22 N	003° 58'.32 E	(17) 52° 52'.31 N	003° 53'.83 E

(e) A southbound traffic lane branching off from the main south-westbound traffic lane is established between the separation zones in paragraphs (a) and (d) and the boundaries of the south-westbound traffic lane are extended, as described in paragraphs (f) and (g).

(f) The north-western boundary of the extended south-westbound traffic lane is formed by a line connecting the following geographical positions:

(12a) 52° 35'.71 N	003° 25'.56 E	(12b) 52° 56'.67 N	003° 53'.44 E
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(g) The south-eastern boundary of the extended south-westbound traffic lane is formed by a line connecting the following geographical positions:

(17) 52° 52'.31 N	003° 53'.83 E	(18) 52° 36'.04 N	003° 31'.02 E
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(h) A separation zone at the south-western end of the south-westbound traffic lane is established and bounded by the following geographical positions:

(20) 52° 34'.34 N      003° 28'.65 E      (22) 52° 31'.94 N      003° 28'.01 E  
(21) 52° 32'.35 N      003° 26'.36 E

(i) A traffic lane for south-westbound traffic is established between the separation zone in paragraph (h) and a line connecting the following geographical positions:

(12) 52° 33'.71 N      003° 23'.17 E      (12a) 52° 35'.71 N      003° 25'.56 E

(j) A southbound traffic lane branching off from the main south-westbound traffic lane is established between the separation zone in paragraph (h) and a line connecting the following geographical positions:

(18) 52° 36'.04 N      003° 31'.02 E      (19) 52° 31'.76 N      003° 29'.87 E

**Note:** The note is to remain unchanged.

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### ANNEX 3

#### AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEMES "IN THE APPROACHES TO HOOK OF HOLLAND AND AT NORTH HINDER"

Reference chart Netherlands 1630 (INT 1416), Edition 4/2010

**Note:** This chart is based on World Geodetic System 1984 datum (WGS 84)

##### Maas North traffic separation scheme

(a) A separation zone is bounded by a line connecting the following geographical positions:

(1)	52° 22'.21 N	003° 51'.38 E	(3)	52° 07'.14 N	003° 47'.10 E
(1a)	52° 19'.17 N	003° 50'.38 E	(4)	52° 17'.07 N	003° 47'.69 E
(2)	52° 07'.17 N	003° 54'.08 E	(5)	52° 22'.45 N	003° 49'.51 E

(b) A traffic lane for northbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(6)	52° 21'.97 N	003° 53'.28 E	(7)	52° 07'.18 N	003° 55'.95 E
(6a)	52° 19'.03 N	003° 52'.34 E			

(c) A traffic lane for southbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(8)	52° 22'.68 N	003° 47'.73 E	(10)	52° 07'.13 N	003° 44'.66 E
(9)	52° 14'.02 N	003° 44'.96 E			

##### Maas North-west traffic separation scheme

(a) A separation zone is bounded by a line connecting the following geographical positions:

(13)	52° 07'.98 N	003° 31'.54 E	(15)	52° 05'.96 N	003° 36'.27 E
(14)	52° 06'.17 N	003° 36'.64 E	(16)	52° 07'.72 N	003° 31'.29 E

(b) A traffic lane for north-westbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(11)	52° 07'.09 N	003° 38'.25 E	(12)	52° 09'.08 N	003° 32'.64 E
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(c) A traffic lane for south-eastbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(17)	52° 06'.62 N	003° 30'.19 E	(18)	52° 05'.04 N	003° 34'.66 E
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##### Maas West inner traffic separation scheme

(a) A separation zone to the north of the DW route is outwardly bounded by a line connecting the following geographical positions:

(21)	52° 02'.12 N	003° 25'.73 E	(23)	52° 00'.57 N	003° 35'.17 E
(22)	52° 02'.56 N	003° 34'.94 E	(24)	51° 59'.75 N	003° 25'.29 E

and inwardly bounded by a line connecting the following geographical positions:

(32)	52° 02'.15 N	003° 33'.36 E	(34)	52° 00'.03 N	003° 27'.01 E
(33)	52° 01'.89 N	003° 27'.31 E	(35)	52° 00'.57 N	003° 33'.51 E

**Note:** The inside of the area in the separation zone to the north of the DW route, bounded by a line connecting the following geographical positions (32), (33), (34) and (35), is designated as an anchorage area.

(b) A separation zone to the south of the DW route is outwardly bounded by a line connecting the following geographical positions:

(25)	51° 59'.92 N	003° 35'.24 E	(26)	51° 59'.09 N	003° 25'.17 E
(25a)	51° 59'.89 N	003° 34'.87 E	(27)	51° 56'.90 N	003° 24'.78 E
(25b)	51° 58'.86 N	003° 33'.51 E	(28)	51° 58'.25 N	003° 35'.44 E
(25c)	51° 59'.47 N	003° 29'.78 E			

Positions 25a and 25b are connected by a circular arc centred on point "25d" (see NAV 58/3/10, annex 3).

(25d) 51° 59.56' N 003° 33.82' E Radius of the arc = 0.729 miles

(c) A traffic lane for westbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(19)	52° 04'.74 N	003° 34'.69 E	(20)	52° 04'.63 N	003° 26'.20 E
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(d) A traffic lane for eastbound traffic is established between the separation zone in paragraph (b) above and a line connecting the following geographical positions:

(29)	51° 54'.10 N	003° 24'.29 E	(30)	51° 56'.26 N	003° 35'.66 E
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(e) A separation zone between the westbound traffic lane of TSS Maas West Inner and the south-eastbound traffic lane of TSS Maas Northwest is bounded by a line connecting the following geographical positions:

(17)	52° 06'.62 N	003° 30'.19 E	(19)	52° 04'.74 N	003° 34'.69 E
(18)	52° 05'.04 N	003° 34'.66 E	(19a)	52° 04'.66 N	003° 28'.25 E

### Maas West outer traffic separation scheme

(a) A separation zone to the north of the DW route is outwardly bounded by a line connecting the following geographical positions:

(38)	52° 01'.26 N	003° 08'.37 E	(40a)*	51° 58'.79 N	003° 13'.86 E
(39)	52° 01'.77 N	003° 18'.81 E	(40b)*	51° 59'.49 N	003° 12'.47 E
(40)	51° 59'.15 N	003° 18'.13 E	(41)	51° 59'.13 N	003° 08'.26 E

\* Positions 40a and 40b are connected by a circular arc centred on point "40c" (see NAV 58/3/10, annex 3).

(40c) 51° 58'.77 N 003° 12'.66 E Radius of the arc = 0.729 miles



and inwardly bounded by a line connecting the following geographical positions:

(42) 51° 59'.88 N	003° 13'.89 E	(44) 52° 01'.05 N	003° 08'.36 E
(43) 52° 01'.26 N	003° 12'.56 E	(45) 51° 59'.40 N	003° 08'.28 E

Thus the created inside area in the separation zone is designated as anchor area.

- (b) A separation zone to the south of the DW route is outwardly bounded by a line connecting the following geographical positions:

(46) 51° 58'.49 N	003° 17'.96 E	(48) 51° 54'.77 N	003° 07'.49 E
(47) 51° 57'.64 N	003° 08'.00 E	(49) 51° 55'.99 N	003° 17'.31 E

and inwardly bounded by a line connecting the following geographical positions:

(52) 51° 55'.64 N	003° 12'.25 E	(54) 51° 56'.89 N	003° 07'.87 E
(53) 51° 57'.37 N	003° 13'.55 E	(55) 51° 55'.06 N	003° 07'.54 E

Thus the created inside area in the separation zone is designated as anchor area.

- (c) A traffic lane for westbound traffic is established between the separation zone in paragraph (a) above and a line connecting the following geographical positions:

(36) 52° 04'.54 N	003° 19'.53 E	(37) 52° 04'.37 N	003° 08'.52 E
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- (d) A traffic lane for eastbound traffic is established between the separation zone in paragraph (b) above and a line connecting the following geographical positions:

(50) 51° 52'.59 N	003° 16'.43 E	(51) 51° 50'.72 N	003° 06'.78 E
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**Note:** The inside of the area in the separation zone to the north of the Eurochannel, bounded by a line connecting the following geographical positions (42), (43), (44) and (45), and the inside of the area in the separation zone to the south of the Eurochannel, bounded by a line connecting the following geographical positions (52), (53), (54) and (55), are designated as anchorage areas.

#### North Hinder North traffic separation scheme

- (a) A separation zone is bounded by a line connecting the following geographical positions:

(61) 52° 07'.29 N	003° 03'.08 E	(63) 52° 11'.51 N	003° 02'.62 E
(62) 52° 09'.38 N	003° 06'.60 E	(64) 52° 09'.03 N	002° 59'.83 E

- (b) A traffic lane for south-westbound traffic is established between the separation zone in (a) above and a line connecting the following geographical positions:

(65) 52° 13'.42 N	002° 59'.03 E	(66) 52° 10'.99 N	002° 56'.16 E
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- (c) A traffic lane for north-eastbound traffic is established between the separation zone in (a) above and a line connecting the following geographical positions:

(67) 52° 05'.55 N	003° 06'.32 E	(68) 52° 07'.72 N	003° 09'.70 E
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**ANNEX 4**

**AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEME  
"OFF RODSHER ISLAND"**

Positions are based on World Geodetic System 1984 Datum (WGS 84). The Russian Federation reference chart #23004 (Pulkovo). For obtaining position in WGS datum charted positions should be moved 0'.14 (8".3) westward.

**Amendments to the traffic separation scheme**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |    |               |                    |
|----|---------------|--------------------|
| .1 | 60° 00'.43 N, | 026° 30'.16 E;     |
| .2 | 60° 01'.05 N, | 026° 34'.86 E;     |
| .3 | 60° 00'.35 N, | 026° 44'.24 E;     |
| .4 | 59° 59'.85 N, | 026° 44'.08 E;     |
| .5 | 60° 00'.15 N, | 026° 40'.21 E; and |
| .6 | 59° 58'.76 N, | 026° 30'.16 E.     |

(b) A traffic lane, one mile wide, is established on each side of the separation zone.

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## ANNEX 5

### AMENDMENT TO THE EXISTING TRAFFIC SEPARATION SCHEME "OFF USHANT"

#### CHANGE IN THE USE OF THE TWO-WAY ROUTE

Amend existing paragraph (h) in the description of the traffic separation scheme "Off Ushant", as follows:

"The two-way route may be used by:

- passenger ships;
- ships of less than 6,000 gross tonnage, travelling from or towards a port situated between Cape Finisterre and Cap de la Hague.

This authorization does not apply to ships carrying oils listed in appendix I, annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), ships carrying in bulk the substances classified in categories X and Y as defined in regulation 6, annex II of that convention, ships corresponding to the requirements of the International Code for the Construction and Equipment of ships Carrying Liquefied Gases in Bulk (IGC Code) and ships carrying fissile or irradiated materials."

#### Consequential amendments to SN/Circ.232

Replace existing article 3 with the following text:

"The two-way route may be used by:

- passenger ships;
- ships of less than 6,000 gross tonnage, travelling from or towards a port situated between Cape Finisterre and Cap de la Hague.

This authorization does not apply to ships carrying oils listed in appendix I, annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), ships carrying in bulk the substances classified in categories X and Y as defined in regulation 6, annex II of that convention, ships corresponding to the requirements of the International Code for the Construction and Equipment of ships Carrying Liquefied Gases in Bulk (IGC Code) and ships carrying fissile or irradiated materials."

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**ANNEX 6**

**AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEME  
"IN THE SANTA BARBARA CHANNEL"**

(Reference charts: United States 18700, 2003 edition; 18720, 2008 edition.

**Note:** These charts are based on North American 1983 Datum which is equivalent to WGS 1984 datum.)

**Description of the traffic separation scheme**

The traffic separation scheme in the Santa Barbara Channel consists of two parts:

*Part I*

**Between Point Vicente and Point Conception**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                 |                                 |
|---------------------------------|---------------------------------|
| (1) 34° 20'.84 N, 120° 30'.28 W | (4) 33° 44'.06 N, 118° 36'.34 W |
| (2) 34° 03'.87 N, 119° 15'.63 W | (5) 34° 02'.94 N, 119° 16'.09 W |
| (3) 33° 44'.93 N, 118° 35'.75 W | (6) 34° 19'.88 N, 120° 30'.59 W |

(b) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                 |                                 |
|---------------------------------|---------------------------------|
| (7) 34° 21'.80 N, 120° 29'.96 W | (9) 33° 45'.80 N, 118° 35'.15 W |
| (8) 34° 04'.80 N, 119° 15'.16 W |                                 |

(c) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (10) 33° 43'.18 N, 118° 36'.94 W | (12) 34° 18'.92 N, 120° 30'.91 W |
| (11) 34° 02'.01 N, 119° 16'.56 W |                                  |

**Note:**

*Port Hueneme Fairway*

A safety fairway is established in the approach to Port Hueneme.

*Part II*

**Between Point Conception and Point Arguello**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                 |                                  |
|---------------------------------|----------------------------------|
| (1) 34° 20'.84 N, 120° 30'.28 W | (13) 34° 24'.76 N, 120° 52'.10 W |
| (6) 34° 19'.88 N, 120° 30'.59 W | (14) 34° 25'.72 N, 120° 51'.78 W |

(b) A traffic lane for westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                 |                                  |
|---------------------------------|----------------------------------|
| (7) 34° 21'.80 N, 120° 29'.96 W | (15) 34° 26'.68 N, 120° 51'.46 W |
|---------------------------------|----------------------------------|

- (c) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(12) 34° 18'.92 N, 120° 30'.91 W

(16) 34° 23'.80 N, 120° 52'.42 W

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**ANNEX 7**

**AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEME  
"OFF SAN FRANCISCO"**

(Reference charts: United States 18680, 2005 edition; 18645, 2008 edition.

**Note:** These charts are based on North American 1983 Datum which is equivalent to WGS 1984 datum.)

**Description of the traffic separation scheme**

The traffic separation scheme Off San Francisco consists of four parts:

*Part I*

**Northern approach**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| (1) 37° 48'.52 N, 122° 47'.63 W  | (38) 38° 08'.03 N, 123° 21'.34 W. |
| (2) 37° 58'.45 N, 123° 09'.49 W  | (3) 37° 57'.67 N, 123° 10'.31 W   |
| (37) 38° 09'.09 N, 123° 20'.82 W | (4) 37° 47'.66 N, 122° 48'.29 W   |

(b) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                 |                                  |
|---------------------------------|----------------------------------|
| (5) 37° 49'.29 N, 122° 46'.79 W | (36) 38° 10'.14 N, 123° 20'.29 W |
| (6) 37° 59'.22 N, 123° 08'.66 W |                                  |

(c) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                 |
|----------------------------------|---------------------------------|
| (39) 38° 06'.92 N, 123° 21'.82 W | (8) 37° 46'.72 N, 122° 48'.76 W |
| (7) 37° 56'.89 N, 123° 11'.14 W  |                                 |

*Part II*

**Southern approach**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (9) 37° 39'.07 N, 122° 40'.40 W  | (11) 37° 18'.71 N, 122° 43'.00 W |
| (10) 37° 18'.45 N, 122° 40'.40 W | (12) 37° 39'.12 N, 122° 43'.00 W |

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (13) 37° 39'.30 N, 122° 39'.14 W | (14) 37° 18'.36 N, 122° 39'.14 W |
|----------------------------------|----------------------------------|

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (15) 37° 18'.89 N, 122° 44'.26 W | (16) 37° 39'.41 N, 122° 44'.26 W |
|----------------------------------|----------------------------------|

*Part III*

**Western approach**

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (17) 37° 41'.90 N, 122° 47'.99 W | (19) 37° 34'.15 N, 123° 00'.37 W |
| (18) 37° 33'.54 N, 123° 03'.79 W | (20) 37° 41'.09 N, 122° 47'.25 W |

(b) A traffic lane for south-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (21) 37° 42'.81 N, 122° 48'.55 W | (22) 37° 34'.37 N, 123° 04'.49 W |
|----------------------------------|----------------------------------|

(c) A traffic lane for north-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (23) 37° 31'.87 N, 123° 02'.40 W | (24) 37° 40'.38 N, 122° 46'.33 W |
|----------------------------------|----------------------------------|

*Part IV*

**Main ship channel**

(a) A separation line connects the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (25) 37° 45'.90 N, 122° 38'.00 W | (27) 37° 48'.10 N, 122° 31'.00 W |
| (26) 37° 47'.00 N, 122° 34'.30 W |                                  |

(b) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (28) 37° 45'.80 N, 122° 37'.70 W | (29) 37° 47'.80 N, 122° 30'.80 W |
|----------------------------------|----------------------------------|

(c) A traffic lane for westbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (30) 37° 46'.20 N, 122° 37'.90 W | (32) 37° 48'.50 N, 122° 31'.30 W |
| (31) 37° 46'.90 N, 122° 35'.30 W |                                  |

**Area to be avoided**

A circular area to be avoided, of radius half a mile, is centred upon geographical position:

- (33) 37° 45'.00 N, 122° 41'.50 W

**Precautionary area**

A precautionary area is established bounded to the west by an arc of a circle of radius 6 miles centring upon geographic position (33) 37° 45'.00 N, 122° 41'.50 W and connecting with the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (34) 37° 42'.70 N, 122° 34'.60 W | (35) 37° 50'.30 N, 122° 38'.00 W |
|----------------------------------|----------------------------------|

The precautionary area is bounded to the east by a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (34) 37° 42'.70 N, 122° 34'.60 W | (35) 37° 50'.30 N, 122° 38'.00 W |
| (25) 37° 45'.90 N, 122° 38'.00 W |                                  |

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## ANNEX 8

### AMENDMENTS TO THE EXISTING TRAFFIC SEPARATION SCHEME "IN THE APPROACHES TO LOS ANGELES – LONG BEACH"

(A continuation of the Santa Barbara Channel scheme)

(Reference Chart: United States 18746, 2009 edition.

**Note:** These charts are based on North American 1983 Datum which is equivalent to WGS 1984 datum.)

#### Description of the traffic separation scheme

The traffic separation scheme "In the Approaches to Los Angeles – Long Beach" consists of three parts:

#### Western approach

(a) A separation zone is bounded by a line connecting the following geographical positions:

- |                                 |                                 |
|---------------------------------|---------------------------------|
| (1) 33° 37'.70 N, 118° 17'.60 W | (4) 33° 44'.06 N, 118° 36'.34 W |
| (2) 33° 36'.50 N, 118° 17'.60 W | (5) 33° 44'.93 N, 118° 35'.75 W |
| (3) 33° 36'.50 N, 118° 20'.48 W | (6) 33° 37'.70 N, 118° 20'.57 W |

(b) A traffic lane for northbound coastwise traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                 |                                 |
|---------------------------------|---------------------------------|
| (7) 33° 38'.70 N, 118° 17'.60 W | (9) 33° 45'.80 N, 118° 35'.15 W |
| (8) 33° 38'.70 N, 118° 20'.24 W |                                 |

(c) A traffic lane for southbound coastwise traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (10) 33° 35'.50 N, 118° 17'.60 W | (12) 33° 43'.18 N, 118° 36'.94 W |
| (11) 33° 35'.50 N, 118° 20'.81 W |                                  |

#### Southern approach

(a) A separation zone is established bounded by a line connecting the following geographic positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (13) 33° 35'.50 N, 118° 10'.30 W | (15) 33° 19'.00 N, 118° 05'.60 W |
| (14) 33° 35'.50 N, 118° 12'.75 W | (16) 33° 19'.70 N, 118° 03'.50 W |

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (17) 33° 35'.50 N, 118° 09'.00 W | (18) 33° 20'.00 N, 118° 02'.30 W |
|----------------------------------|----------------------------------|

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (19) 33° 35'.50 N, 118° 14'.00 W | (20) 33° 18'.70 N, 118° 06'.75 W |
|----------------------------------|----------------------------------|

**Precautionary area**

(a) The precautionary area consists of the water area enclosed by the Los Angeles – Long Beach breakwater and a line connecting Point Fermin Light at 33° 42'.30N, 118° 17'.60W, with the following geographical positions:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| (10) 33° 35'.50 N, 118° 17'.60 W | (21) 33° 37'.70 N, 118° 06'.50 W |
| (17) 33° 35'.50 N, 118° 09'.00 W | (22) 33° 43'.40 N, 118° 10'.80 W |

**Note:**

Pilot boarding areas are located in the precautionary area. Due to heavy vessel traffic, mariners are advised not to anchor or linger in this precautionary area except to pick up or disembark a pilot.

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