

## 17. TRAFFIC SEPARATION SCHEMES AND INFORMATION CONCERNING ROUTEING SYSTEMS SHOWN ON ADMIRALTY CHARTS

Source: UKHO.

*Former Notice 17/09 is cancelled. Additions and amendments to the former Notice are indicated by sidelines.*

1. Following the implementation of the first traffic separation scheme (TSS) in the Dover Strait in 1967, many similar schemes have been established throughout the world. Details of each scheme are shown on the relevant Admiralty charts and many are referred to in Admiralty Sailing Directions. General information about ships' routeing, particularly with respect to regulations, is included in The Mariner's Handbook (NP100), chapter 9.
2. The International Maritime Organization (IMO) is the body responsible for establishing and recommending measures on an international level concerning ships' routeing. Where schemes lie wholly within territorial waters, decisions concerning routeing rest with the national government but such schemes may also be submitted for IMO approval and adoption.
3. The details of schemes adopted by IMO are set out in the IMO publication "Ships' Routeing", 9<sup>th</sup> Edition 2008, and in subsequent amendments and IMO circulars. See also [paragraph 13c](#) below. Compliance with Rule 10 of the International Regulations for Preventing Collisions at Sea, 1972, is mandatory for all vessels when operating in or near schemes which have been adopted by IMO (see The Mariner's Handbook). In some schemes, special provisions are included governing their use by all vessels or by specified classes of vessels. On the charts, relevant information is given, or there is a recommendation for chart users to consult Admiralty Sailing Directions for details.
4. While vessels using the traffic lanes in schemes adopted by IMO must, in particular, comply with Rule 10 of the International Collision Regulations, they are not thereby given any right of way over crossing vessels; the other Steering and Sailing Rules still apply in all respects, particularly if risk of collision is involved.
5. It is United Kingdom Hydrographic Office (UKHO) policy to insert on Admiralty charts not only the IMO-adopted routeing measures but also those established by coastal states or other competent national authorities concerned with the safety of navigation. On the charts, the IMO-adopted schemes are not normally differentiated from the other routeing schemes; the portrayal of national traffic separation schemes on Admiralty charts is solely for the safety and convenience of shipping and implies no recognition of the international validity of the relevant regulations. Masters of deep draught vessels should note that the existence of a scheme does not imply that the traffic lanes have been adequately surveyed; charted depths and source diagrams (if available) should be studied when planning a passage where depths are critical.
6. When the UKHO has sufficient notice of an intended **amendment** to a TSS which is to be implemented on a given date, a Preliminary Notice to Mariners ((P)NM) will be issued detailing the changes and promulgating the implementation date. New Editions of the more significant scales of paper and ARCS charts showing the changes will be published 4 to 8 weeks prior to the implementation date; this enables the mariner to hold both a copy of the existing chart and a copy of the New Edition depicting the amended TSS. The existing versions of these charts will be renumbered as X versions, having their numbers prefixed with an X to distinguish them from the New Edition. When the TSS changes are implemented, the X versions of the charts will be independently withdrawn and other charts affected by the routeing measure amendments will be updated by textual NM or Block. During the short life of the X versions, any other significant changes to charted detail on these charts will be promulgated by Temporary Notices to Mariners.
7. When a **new** TSS is to be implemented, New Editions of the more significant scales of paper and ARCS charts (or occasionally New Charts) will be published showing the new scheme 4 to 8 weeks prior to the implementation date. A note will be shown on the face of the chart indicating the exact implementation date. Other charts affected by the routeing measure to a lesser extent will be updated separately nearer the implementation date.
8. For GB Electronic Navigational Charts (ENCs) - see also The Mariner's Handbook (NP 100) chapter 2 - updates to Routeing Measures such as TSS, are made using a multi-stage process. Firstly, when the (P)NM is issued for the paper charts ([para 6](#) above), the relevant ENCs are updated with Cautionary Areas (CTNARE) covering the area of change attributed with Textual Description Files (TXTDSC) replicating the NM text and Nautical Publication Meta (M\_NPUB) objects of the same area attributed with Pictorial Representation (PICREP) files containing any diagrams associated with the (P)NM. At about the time NEs of paper charts are issued (4 to 8 weeks prior to implementation date), the new or updated routeing measures will be included in an ENC New Edition or update attributed with Date Start (DATSTA) and any old measures to be superseded will be attributed with the Date End (DATEND). This will enable the features to update automatically at the designated implementation date/time. After implementation, approximately coinciding with the cancellation of the (P)NM, a further update/NE of the relevant ENC cells will be issued removing the CTNARE, M\_NPUB and superseded routeing measures. ENCs produced by other national authorities may have a different updating process. See also The Mariner's Handbook chapter 2 for notes on the display of updates on ECDIS that do not meet current type approval standards.

9. It is not possible to replicate the 'X chart procedure' for ENC's as only one version of an ENC can be current within an ECDIS at any one time. This was recognised when defining the S-57 Standard and has been catered for by the inclusion of DATSTA/DATEND attribution to relevant chart objects. UKHO will issue changes to ENC's (updates or New Editions) up to 8 weeks in advance of the implementation date by inserting the new routing measures attributed with DATSTA and, where appropriate, adding DATEND to any objects that are to be removed at the same time.
10. On an ECDIS with the system clock set correctly to UTC, the changes will be effected automatically. The ECDIS should, however, have functionality to allow preview of the changes; in some cases this may be by advancing the computer system clock to correspond to the implementation time/date of the new measures. Where this is the case, on completion, it must be remembered to reset the ECDIS back to the correct time and date.
11. Details of any new or amended routing measures are also promulgated by Preliminary (P) Notices to Mariners in advance of implementation and these are included within the ENC as text and / or picture files. Such files are accessible through the 'query' or 'review update' mechanism of the ECDIS. The (P) Notices to Mariners and any information relating to the previous scheme will be deleted in the week following implementation.
12. During the period from initial promulgation through to when the ECDIS is updated for Notices to Mariners following the implementation date, users of ECDIS that have been type approved to IEC 61174 Version 1 may see both the old and new routing measures displayed simultaneously, which could render the display confusing. In such a situation, where the ECDIS is unable to apply the DATSTA/DATEND attribution correctly, mariners are advised to obtain paper X charts versions and New Editions of areas where a change to routing measures are pending, as soon as they have been published. The X versions should be referred to up to the time the new measures are implemented before changing over completely to the New Editions of the paper charts and ENC navigation should only be resumed when users are certain that amended routing measures included within the ENC have been recognised by and are displayed on the ECDIS.
13. The list which follows contains details of all the traffic separation schemes at present included in the Admiralty chart series, or in the process of being inserted. Several facts about each scheme are given:
  - a. In each case, only the principal Admiralty charts on which the details of the scheme are shown, are quoted. Chart numbers marked thus † indicate that action is in hand to insert new or amended TSS on these charts, by issue of Notice to Mariners or by inclusion in New Edition or New Chart.
  - b. For all schemes, the originating authority is given, where this is known. Where the scheme has been adopted by the International Maritime Organization, the abbreviation "IMO" is shown in the originating column.
  - c. In some cases, the volumes of the Admiralty Sailing Directions which contain details of the scheme are quoted under the heading "Remarks".

**List of traffic separation schemes shown on Admiralty Charts.****(2) BRITISH ISLES** (including English Channel and southern North Sea for which the Mariner's Routeing Guide — Chart 5500 — is recommended as an additional reference)

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Approaches to the River Humber	1188, 109, 107, 1190	IMO	
In the Sunk area and northern Approaches to the Thames Estuary	2692, 1975, 2052, 1183, 1610, 1406, 1408, 2182A	IMO	
At North (Noord) Hinder, (comprising Noord Hinder North and Noord Hinder South Traffic Separation Schemes)	1873, 1872, 1610, 1630, 2449, 1504, 1406, 1408, 2182A	IMO	(*note IMO documentation & charts do not include "Noord", just "North")
In the Approaches to Hook of Holland, (comprising Maas West Outer, Maas West Inner, Maas Northwest and Maas North Traffic Separation Schemes)	110, 122, 1630, 1406, 1408, 2182A	IMO	
At West Hinder	1873, 1874, 323, 1872, 2449, 1610, 1630, 1406, 2182A	IMO	
In the Strait of Dover and adjacent waters	323, 1892, 2451, 1610, 2449, 1406, 2675, 536, 1652, 2450, 2656, 2182A	IMO	
Off Casquets	2656, 2675, 442, 2454	IMO	
Off Land's End, between Seven Stones and Longships	1148, 1178, 2565, 2655, 2649, 2675, 1123, 777	IMO	
South of the Isles of Scilly	2565, 2655, 2649, 2675, 1123	IMO	
West of the Isles of Scilly	2565, 1178, 2649, 2675, 1123, 2655	IMO	
Off Fastnet Rock	2424, 1123, 2649	IMO	
Off Smalls	1478, 1410, 1178, 1121, 1123	IMO	
Off Tuskar Rock	1787, 1178, 1410, 1121, 1123	IMO	
Holyhead Harbour	2011, 1413	Stena Line Ports Limited, Holyhead	
Off Skerries	1413, 1977, 1411, 1826, 1121	IMO	
Liverpool Bay	1978, 1981, 1826	IMO	
Approaches to Dublin	1415, 1468	Government of Ireland	
In the North Channel	2199, 2798, 2723, 2724, 1121, 2635	IMO	
Off Neist Point	1795, 1757, 2635	IMO	

**(3) RUSSIA, NORTH COAST, NORWAY, FØROYAR AND ICELAND**

<i>Scheme</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Off Mys Zimnegorskiy	2272, 2273, 3180	Government of Russia	
Off Ostrov Sosnovets	2271, 2272, 3180	Government of Russia	
Off Ostrova Ponoyskiye Ludki	2270, 2271, 3180, 3181	Government of Russia	
Off Tersko-Orlovskiy	2269, 2270, 3180, 3181	Government of Russia	
Off Svyatonoskiy Poluostrov	2269, 3180	Government of Russia	
Entrance to Kol'skiy Zaliv	2966, 2333, 3180	Government of Russia	

<i>Scheme</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Proliv Karskiye Vorota	2967, 3181	Government of Russia	
Off Makkaur	2317	Government of Norway	
Off Nordkinn	2330	Government of Norway	
Off Nordkapp	2315, 2330	Government of Norway	
Off Feistein	2281, 2182C	IMO	
Oslo Fjord, East of Fuglehuk	3159	Government of Norway	
Oslo Fjord, East of Bastøy	3159	Government of Norway	
Oslo Fjord — West of Jeløya	3154, 3159	Government of Norway	
Oslo Fjord — West of Nesoddtangen	3712, 3154	Government of Norway	
Vardø to Røst	1632, 2228, 2315, 2317, 2328, 2330, 2366, 2367, 2368, 2962, 3180, 4100, 4101	IMO	
Off the Southwest Coast of Iceland	2734, 2733, 2897	IMO	

#### (4) BALTIC SEA

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
The Åland Sea	2337, 2338, 2296, 2297	IMO	
Off Seskar Island (Ostrov Seskar)	2264, 2817	Government of Russia	
Off Sommers Island (Ostrov Sommers)	2264, 2817	IMO	
Off Hogland (Gogland) Island (Ostrov Gogland)	2264, 2248, 2817	IMO	
Off Rodsher Island (Ostrov Rodsher)	2248, 2817	IMO	
Off Kalbådgrund Lighthouse	2248, 2817	IMO	
Off Porkkala Lighthouse	2241, 2248, 2817	IMO	
Off Hankoniemi Peninsula (Hanko)	2241, 2297, 2817	IMO	
Off Köpu Peninsula (Hiiumaa Island) (Köpu Poolsaar)	2222, 2241, 2817	IMO	
Approaches to Stockholm, Sandhamn Entrance	3155, 3156, 3157, 3127	Government of Sweden	
Off Gotland Island	2251, 2288, 2816, 2817	IMO	
Off Öland Island	2251, 2360, 2816	IMO	
Bornholmsgat	958, 2150, 2365, 2816	IMO	
North of Rügen	2115, 2365, 2816	IMO	
South of Gedser	2601, 2365, 2816	IMO	
Between Korsoer and Sprogø (Korsør and Sprogø)	938, 2596, 2106	IMO	
Hatter Barn	2589, 2590, 2596, 2108	IMO	
In The Sound	877, 2594, 2115, 2108	IMO	
Off Falsterborev	2595, 2115, 2360, 2816	IMO	
Off Kiel Lighthouse	2341, 2113, 2106	IMO	
Zatoka Gdanska	2688, 2369, 2288, 2816	IMO	
In the Approaches to Tallinn	2227, 2241, 2248	Government of Estonia	

(5) **NORTH SEA AND NORTH AND WEST COASTS OF DENMARK, GERMANY, NETHERLANDS AND BELGIUM**  
(see also section (2) for schemes in the southern North Sea)

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
German Bight Western Approach	1875, 1633, 3761, 3767, 1405	IMO	
In the Approaches to River Elbe	3617, 3619, 1875, 3761, 3767	IMO	
Jade Approach	1875, 3761, 3767, 1405	IMO	
Terschelling — German Bight	3631, 3617, 1875, 1633, 3761, 3767, 1405	IMO	
Vlieland North	1632, 1633, 1405, 1408	IMO	
Off Vlieland	112, 1631, 1632, 1633, 1405, 1408	IMO	
Off Texel	1631, 1408	IMO	
Off Brown Ridge	1504, 1631, 1408	IMO	
West Friesland	1632, 1633, 1405, 1408	IMO	
East Friesland	1633, 1405	IMO	
Off Botney Ground	1503, 1632, 1187, 1408	IMO	

(6) **FRANCE AND SPAIN, NORTH AND WEST COASTS, AND PORTUGAL**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Off Ushant (Île d'Ouessant)	2644, 20, 2655, 2649, 2675, 1104	IMO	
Off Finisterre	1111, 3633, 87, 1104	IMO	
Approaches to Vigo	1730	Government of Spain	
Off Cape Roca (Cabo da Roca)	3635, 87	IMO	
Off Cape St. Vicente (Cabo de São Vicente)	89, 3636, 91, 87, 3132	IMO	
At Banco del Hoyo	142, 93, 773, 91, 3132	IMO	
Canary Islands	1869, 1870, 3133, 3134	IMO	

(8) **MEDITERRANEAN AND BLACK SEAS**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
In the Strait of Gibraltar	91, 773, 142, 1448, 3578, 1912†	IMO	
Off Cabo de Gata	774, 2437	IMO	
Off Cape Palos (Cabo de Palos)	774, 1700	IMO	
Off Cape la Nao (Cabo de la Nao)	1700, 1701	IMO	
Approaches to Skikda	252, 855, 2121	Government of Algeria	
Approaches to Golfe d'Oran	822, 1909, 2437, 774	Government of Algeria	
Off Cani Island (Îles Cani)	2121, 2122, 165	IMO	
Approaches to Castellon	1514, 1701	Government of Spain	
Approaches to Barcelona	1180, 1196	Government of Spain	
Approaches to Genova	354, 355, 356, 1998†	Government of Italy	
Approaches to Porto-Vecchio	1425, 1992	Government of France	
Golfo di Olbia	1211	Government of Italy	
Off Cape Bon (Cap Bon)	2122, 165	IMO	

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Approaches to Pontile SARAS No 1 & Pontile SARAS No 2 (Sarroch Oil Terminal)	1208	Government of Italy	
Approaches to Pontile ENICHEM Sud	1208	Government of Italy	
Approaches to Cagliari	1208	Government of Italy	
Approaches to Livorno	119, 1998, 1999	Government of Italy	
Approaches to Piombino	131	Government of Italy	
Approaches to Civitavecchia	907, 1911, 1999	Government of Italy	
Approaches to Napoli	914, 915, 908	Government of Italy	
Approaches to Torre Annunziata	916	Government of Italy	
Approaches to Castellammare di Stabia	916	Government of Italy	
In Stretto di Messina	917, 1018	Government of Italy	
Approaches to Palermo	963	Government of Italy	
Approaches to Taranto	1643, 1417	Government of Italy	
Approaches to Bari	140	Government of Italy	
Approaches to Brindisi	1418, 186, 187, 188	Government of Italy	
Approaches to Ancona and Falconara Marittima	1444, 220, 200	Government of Italy	
In the North Adriatic Sea: Approaches to the Gulf of Trieste Approaches to the Gulf of Venice In the Gulf of Trieste Approaches to Koper Approaches to Monfalcone	1483, 1467, 1471, 201, 515, 202, 204, 220, 1440	IMO	
Approaches to Chioggia, Malamocco and Venezia	1449, 1483, 204	Government of Italy	
Approaches to Trieste	1471	Government of Italy	
Otranto		Government of Italy	Not shown on Admiralty Chart 188. For details see Admiralty Sailing Directions, NP47
Off Otok Palagruža	196, 200, 1440	Government of Croatia	
In Vela Vrata	2719, 204	Government of Croatia	
Saronicos Gulf (Saronikós Kólpos, in the Approaches to Piraiévs)	1657	IMO	
Between Çanakale Bogazi (The Dardanelles) and Istanbul Bogazi (The Bosphorus) including Marmara Denizi	1086, 1608, 2429, 1004, 1005, 2286, 1158, 1159, 1198, 3930, 224, 2230	IMO	
Between Burgas and Nos Kaliakra	2399, 2285, 2230, 2283	Government of Bulgaria	
Approaches to Burgas	2399, 2283	Government of Bulgaria	

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
In the Approaches to Constanța and Midia	2284, 2282, 2232, 2230	Government of Romania	
In the Approaches to the Ports of Odesa and Il'ichevsk	2205, 2212, 2243, 2232	IMO	This scheme has been extended by Ukraine to include the Approaches to Yuzhnyy, but the extension has not yet been adopted by IMO
Between the Ports of Odesa and Il'ichevsk	2205, 2212, 2243	IMO	
Off Sevastopol'	2232	Government of Ukraine	
Off Mys Sarych	2232, 2233	Government of Ukraine	
In the Southern Approaches to the Kerch Strait (Kerchenskiy Proliv)	2242, 2216, 2233	IMO	
In the Northern Approaches to Kerch Strait (Kerchenskiy Proliv)	2234	Governments of Ukraine and Russia	
Approaches to Berdyans'k and Mariupol'	2234	Government of Ukraine	
Approaches to Novorossiysk	3316, 3311	Government of Russia	
Approaches to P'ot'i	3317†, 3313, 2236	Government of Georgia	
Approaches to Supsa	3313, 2236	Government of Georgia	
Approaches to Bat'umi	3317†, 3313, 2236	Government of Georgia	
In the Approaches to Ashdod	1591	Government of Israel	
Western Approaches to Mînâ' Dumyât	2578, 2573, 2574	IMO	
Eastern Approaches to Mînâ' Dumyât	2578, 2573, 2574	IMO	
Western Approaches to Bûr Sa'îd	2578, 2573	IMO	
Eastern Approaches to Bûr Sa'îd	2578, 2573	IMO	

**(10) AFRICA, SOUTH AND EAST COASTS, AND MADAGASCAR**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Approaches to Port Elizabeth	4158, 4157, 4156	Government of South Africa	
Approaches to Saldanha Bay	4145, 4146, 4151, 578	Government of South Africa	
Approaches to Table Bay	1846, 4148, 4150, 4145, 4146, 4151, 4152, 578	Government of South Africa	
Alphard Banks (South of Cape Infanta)	4153, 578	IMO	
FA Platform (South of Cape St Blaize)	4153, 4155, 578, 2095	IMO	

**(11) RED SEA, ARABIA, IRAQ AND IRAN**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
In the Gulf of Suez	2133, 333, 2373, 2374, 2375, 159	IMO	The Mariner's Routeing Guide, Chart 5501, is recommended as an additional reference
In the Strait of Tiran	801, 2375, 12, 159	IMO	
In the Approaches to Yanbu'	326, 327, 328, 158	The Royal Commission for Jubail and Yanbu', Kingdom of Saudi Arabia	
In Bab-el-Mandeb	452, 1925, 3661, 143, 6, 157	IMO	
West and South of Hanish al Kubra	453, 1925, 143, 6, 157	IMO	
East of Jabal Zuqar Island	453, 1925, 143, 6, 157	IMO	
Off Ra's al Hadd	38, 2851, 707, 2858	IMO	
Off Ra's al Kûh	3171, 3520, 2888, 2851, 2837, 2858	IMO	
In the Strait of Hormuz	3172, 3173, 2888, 2837, 2851, 2858	IMO	
Tonb-Forur (Jazireh-ye Tonb-e Bozorg to Jazireh-ye Forur)	2441, 3174, 2887, 2888, 2837, 2858	IMO	
Off Mîna' al Ahmadi	1223, 3773, 2882, 2884, 2847, 2858	IMO	
Between Zaqqum and Umm Shaif Oilfields	2443, 2444, 3178, 3179, 2886, 2887, 2889, 2837, 2858	IMO	
In the Approaches to Ra's Tannûrah	3776, 3812, 3777, 3788, 3790, 2882, 2883, 2886, 2837, 2847, 2858	IMO	Amended width of Arrival Channel not yet IMO adopted.
In the Approaches to Ra's al Ju'aymah	3776, 3777, 3788, 2882, 2883, 2886, 2837, 2847, 2858	IMO	Departure Channel. See Admiralty Sailing Directions, NP 63.
Between Zuluf and Marjan Oilfields	3774, 2882, 2884, 2847, 2858	IMO	

**(12) INDIAN OCEAN, PAKISTAN, INDIA, SRI LANKA, BANGLADESH AND BURMA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Off Mumbai	2621, 1487	Director General, Shipping, India	Mandatory for all Indian and Foreign flag ships
Off Dondra Head	3265, 813, 827, 828, 709	IMO	

**(13) MALACCA STRAIT, SINGAPORE STRAIT AND SUMATERA**

(The Mariners' Routeing Guide - Chart 5502 - is recommended as an additional reference)

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Port of Singapore — Traffic Systems – Sinki Fairway	4031, 4032, 4034, 4035, 4040, 3833	Maritime and Port Authority of Singapore	See Admiralty Sailing Directions, NP 44
Port of Singapore — Traffic Systems – Southern Fairway	3833, 4035, 4036, 4037, 4040, 4041	Maritime and Port Authority of Singapore	See Admiralty Sailing Directions, NP 44
At One Fathom Bank (Permatang Sedepa)	2139, 3940, 3945, 3946, 1353, 1358	IMO	See Admiralty Sailing Directions, NP 44
Port Klang (Pelabuhan Klang) to Port Dickson	1140, 2139, 3940, 3946, 1358	IMO	See Admiralty Sailing Directions, NP 44

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Port Dickson to Tanjung Keling	3946, 3947, 1358	IMO	See Admiralty Sailing Directions, NP 44
Melaka to Iyu Kecil	3833, 2403, 3946, 3947, 1358	IMO	See Admiralty Sailing Directions, NP 44
In the Singapore Strait (Main Strait)	4030, 4031, 4036, 4038, 4039, 4040, 4041, 3833, 5502, 2403, 3947, 1358	IMO	See Admiralty Sailing Directions, NP 44
In the Singapore Strait (off St John's Island (Pulau Sakijang Bendera))	4040, 4041, 3833, 5502, 2403, 1358	IMO	See Admiralty Sailing Directions, NP 44
In the Singapore Strait (off Changi and Pulau Batam)	4037, 4041, 4042, 3831, 3833, 5502, 2403	IMO	See Admiralty Sailing Directions, NP 44
At Horsburgh Lighthouse Area	4042, 3831, 2403, 1311, 3543, 5502, 1312	IMO	See Admiralty Sailing Directions, NP 44

**(14) CHINA SEA WITH ITS WEST SHORE AND CHINA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
East Lamma Channel, Hong Kong	4121, 4127, 4129, 341, 937, 3026	IMO	
Tathong Channel, Hong Kong	4117, 4126, 4127, 341, 937, 3026	IMO	
North-west Siu A Chau, North Cheung Chau and South Cheung Chau	4121, 4129, 341, 937, 3026	Government of Hong Kong SAR, China	See Admiralty Sailing Directions, NP 30
Dangan Shuidao and Lantau Channel	341, 937, 3026	Government of Hong Kong SAR, China	See NM5302(T)/05
Qing Zhou	341, 3026	Government of Peoples' Republic of China	For High Speed Craft Only
Approaches to Shanghai	1601, 1603, 1124, 1199, 3480, 2412	Government of Peoples' Republic of China	
Above Wusong Kou	1601, 1603, 1619	Government of Peoples' Republic of China	
Huangpu Jiang	1601	Government of Peoples' Republic of China	
Hengsha	1603	Government of Peoples' Republic of China	
Off Chengshan Jiao	1254, 1255, 1256, 3480	IMO	
Approaches to Dalian	3697, 1249, 1255	Government of Peoples' Republic of China	
T'ai-chung	2618, 3231	—	
Chi-lung	2619, 3658	—	
Approaches to Kao-hsiung	2376, 3230, 3232, 2409	Kao-hsiung Harbour Bureau	
Ko Si Chang to Si Racha and Laem Chabang	986, 1046	Government of Thailand	
Qiongzhou Haixia	37, 3892, 3991	Government of Peoples' Republic of China	
NE Approaches to Qiongzhou Haixia	3892	Government of Peoples' Republic of China	
Laotieshan Shuidao	1249, 1255, 1256	Government of Peoples' Republic of China	
Qingdao Gang	876, 1253	Government of Peoples' Republic of China	
Mazu Ao	2419	—	

**(15) JAPAN**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Kurushima Kaikyo	JP132, JP104, JP153, JP1108	Government of Japan	Mandatory for all shipping. See Admiralty Sailing Directions, NP 42B
Bisan Seto (North, South & East) and Approaches to Mizushima and Uko (West & East)	JP137A, JP137B, JP153, JP106, JP1127A	Government of Japan	Mandatory for all shipping. See Admiralty Sailing Directions, NP 42B
Akashi Kaikyo	JP131, JP150A	Government of Japan	Mandatory for all shipping. See Admiralty Sailing Directions, NP 42B
Irago Suido	JP1052, JP1053, JP1051, JP1064	Government of Japan	Mandatory for all shipping. See Admiralty Sailing Directions, NP 42A
Uraga Suido and Na Ka-no-Se	JP91, JP1083, JP1067, JP1081, JP1061, JP1062, JP90	Government of Japan	Mandatory for all shipping. See Admiralty Sailing Directions, NP 42A

*Note:* Recommended and Voluntary Schemes in Japanese waters.

Some traffic separation schemes recommended by Japanese government agencies and several voluntary schemes are in use in Japanese waters. Where known, details are given in Admiralty Sailing Directions. These schemes are not shown on Admiralty charts nor on the charts published by the Japanese Hydrographic Office.

**(16) KOREA AND THE PACIFIC COASTS OF RUSSIA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Namp'o	1257	Government of Korea	
Approaches to Inch'on and P'yongt'aek	1270, 1271, 1258	Government of Korea	
Off Ong Do	913, 1258	Government of Korea	
Maemul Sudo	3365, 3480	Government of Korea	
Off Pogilto	3365	Government of Korea	
Approaches to Wando Hang	3365	Government of Korea	
Off Hong Do	127	Government of Korea	
Jinhae Man, Budo Sudo, Gadeog Sudo	1065	Government of Korea	
Approaches to Pusan	1259, 1065	Government of Korea	
Approaches to Kamch'on	1259, 1065	Government of Korea	
Approaches to Wonsan	884	Government of Korea	
Hungnam	885	Government of Korea	
Ch'ongjin	884	Government of Korea	
Najin	884	Government of Korea	
Approaches to P'ohang	898	Government of Korea	
Approaches to Mokp'o	3928, 1558	Government of Korea	
Komundo Northwards	3365, 127	Government of Korea	
Approaches to Kwangyang Hang	3390, 3391, 127	Government of Korea	
In the Approaches to Vladivostok	2432, 2293, 3045, 3044	Government of Russia	
In the Approaches to Zaliv Nakhodka	3041, 2432, 2293, 3046	IMO	
Off Mys Ostrovnoy	2432, 2293, 3046	IMO	
La Perouse Strait	1801, 1802, 2293	Government of Russia	
Proliv Yekateriny	1802, 2293	Government of Russia	
Proliv Shpanberga	1802, 1803, 2293	Government of Russia	

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Off Mys Aniva	1802, 2293	IMO	
In the Approaches to Sovetskaya Gavan' and Bukhta Vanino	3340	Government of Russia	
Proliv Friza	4511	Government of Russia	
Proliv Urup		Government of Russia	Not shown on Admiralty Chart 4511. For details see Admiralty Sailing Directions, NP41
South of Ostrov Broutona		Government of Russia	Not shown on Admiralty Chart 4511. For details see Admiralty Sailing Directions, NP41.
Proliv Bussol'	4511	IMO	
Chetverty Kuril'skiy Proliv	2128, 4511	IMO	
Mys Povorotnyy to Mys Opasnyy		Government of Russia	Legend shown on Admiralty Chart 4512. For details see Admiralty Sailing Directions, NP23
Approaches to Avachinskaya Guba		Government of Russia	Not shown on Admiralty Chart 4512. For details see Admiralty Sailing Directions, NP23

**(17) PHILIPPINE ISLANDS, BORNEO AND INDONESIA EXCEPT SUMATERA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Verde Island Passage	3807, 3489, 4490	Government of Philippines	
Approaches to Manila Bay	3806, 4491	Government of Philippines	
Approaches to Manila Harbour	3931, 3932	Government of Philippines	
Cebu, Mactan Channel	14, 13	Government of Philippines	
Malapascua Island	4477, 4478	Government of Philippines	
Batangas	3558	Government of Philippines	
Approaches to Bintulu Port	1748, 2100, 3837	Government of Malaysia	

**(18) AUSTRALIA AND PAPUA NEW GUINEA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
South of Wilsons Promontory in the Bass Strait	Aus 802, Aus 357A, Aus 487, Aus 422	IMO	
In the Bass Strait	Aus 357A, Aus 422, Aus 423, Aus 487	IMO	
Port Jackson	Aus 197, Aus 201, Aus 200	Government of Australia	
Botany Bay	Aus 197, Aus 198, Aus 199	Government of Australia	
Port Darwin	Aus 28, Aus 24	Government of Australia	

**(21) ALEUTIAN ISLANDS, ALASKA AND WEST COAST OF NORTH AMERICA, INCLUDING MEXICO**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Prince William Sound and Valdez Arm	4979, 4980, 4981, 4982	IMO	
In the Strait of Juan de Fuca and its Approaches	4945, 4947, 4950	IMO	

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
In Puget Sound and approaches in Haro Strait, Boundary Pass and in the Strait of Georgia	4950, 1947, 46, 47, 48, 80, 4951, 4952	IMO	
Vancouver Harbour	4952, 4962, 4963	Government of Canada	
Off San Francisco	229, 591	IMO	
San Francisco Harbor and inner approaches	591, 588, 590	Government of USA	
In the Santa Barbara Channel and in the Approaches to Los Angeles — Long Beach	1063, 899, 2530	IMO	
In the Approaches to Manzanillo	1979	API Manzanillo	Details in VTS Guide published by API Manzanillo
In the Approaches to Salina Cruz	1940	IMO	

**(22) WEST COASTS OF CENTRAL AND SOUTH AMERICA**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Landfall and Approaches to Talara Bay	3089, 3092	IMO	
Landfall and Approaches to Bahía de Paíta	3089, 3092	IMO	
Landfall off Puerto Salaverry	3091, 3092	IMO	
Landfall and Approaches to Ferrol Bay (Puerto Chimbote)	3083, 3091	IMO	
Approaches to Callao	1853, 3091	IMO	
Landfall and Approaches to San Martín	3084, 3091	IMO	
Landfall and Approaches to San Nicolás Bay	3090	IMO	
Landfall and Approaches to Puerto Ilo	3090	IMO	
In the Approaches to Arica	3070	IMO	
In the Approaches to Iquique	3076, 3070	IMO	
In the Approaches to Antofagasta	4223, 4227	IMO	
In the Approaches to Quintero Bay	1314, 3073	IMO	
In the Approaches to Valparaíso	1314, 3073, 3074	IMO	
In the Approaches to Concepción Bay (Bahía Concepción)	1319, 3074	IMO	
In the Approaches to San Vicente Bay (Bahía San Vicente)	1319, 3074, 3075	IMO	
In the Approaches to Puntas Arenas	1694, 1281, 554	IMO	

**(25) CARIBBEAN SEA, WEST INDIES AND THE GULF OF MEXICO**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
Canal de Maracaibo	1519, 1517, 1524	Government of Venezuela	
Golfo de Venezuela	2190	Government of Venezuela	
Off Cabo San Antonio	3867, 1220, 2579	IMO	
Off La Tabla	3867, 1220, 2579	IMO	
Off Costa de Matanzas	3866, 3867, 1217, 2579	IMO	
In the Old Bahama Channel	2009, 3865, 3866, 2579	IMO	
Off Punta Maternillos	3865, 2579	IMO	
Off Punta Lucretia	3865, 2579	IMO	
Off Cabo Maisi	3865, 1266, 486, 2579	IMO	
In the Approaches to the Port of Veracruz	374, 376	IMO	
In the Approaches to Galveston Bay	3183, 3854	IMO. Government of USA for changes in the vicinity of the Offshore Channel	

**(26) EAST COAST OF NORTH AMERICA AND GREENLAND**

<i>Scheme Name</i>	<i>Principal Admiralty Charts</i>	<i>Authority</i>	<i>Remarks</i>
In the Approaches to the Cape Fear River	3687, 3688	IMO	
In the Approaches to Chesapeake Bay	2919, 2861	IMO	
Chesapeake Bay, off Smith Point	2920	Government of USA	
Off Delaware Bay	2564, 2563, 2861	IMO	
Off New York	3204, 2755, 2860, 2492	IMO	
In the Approaches to Narragansett Bay, Rhode Island and Buzzards Bay, Massachusetts	2890, 2860, 2492	IMO	
In the Approaches to Boston, Massachusetts	1227, 3096, 2860, 2492	IMO	
In the Approaches to Portland, Maine	2490, 3676, 2492	IMO	
Approaches to Bay of Fundy	4746	IMO	
Approaches to Halifax	4752, 4751	Government of Canada	
In the Approaches to Chedabucto Bay	4748, 4756	IMO	
Gulf and River St. Lawrence	4782, 4777, 4774, 4766, 4764, 4775, 4767, 284, 779, 3335	Government of Canada	
St. George's Bay	4765, 4748, 4757	Government of Canada	
Placentia Bay	4739, 4734	Government of Canada	