



INTERNATIONAL  
HYDROGRAPHIC  
ORGANIZATION



DIRETORIA DE  
HIDROGRAFIA E  
NAVEGAÇÃO

Série de Cartas Internacionais

# **CARTA 12000**

Símbolos, Abreviaturas e Termos  
usados nas Cartas Náuticas

International Chart Series

# **INT 1**

Symbols, Abbreviations and Terms  
used on Charts

5ª Edição, 2022  
*5th Edition, 2022*

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**ATUALIZADA COM AS CORREÇÕES PUBLICADAS NOS FOLHETOS DE AVISOS AOS  
NAVEGANTES N<sup>os</sup> 7/22 E 9/22.**





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## Introdução

### Carta 12000

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### Informações relativas às cartas náuticas

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### Informações complementares

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### Catálogo de Cartas Náuticas e Publicações

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### Revisão contínua

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### Cartas da mesma região

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### Projeção

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### Sondagens

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### Planos de referência

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### MLWS

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### LAT.

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### HAT.

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### MHWS

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### MSL

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.....

**NR**

**Balizamento**

**Marcações**

**Direito Exclusivo de Reprodução**

**Alcance**

## **Introduction**

### **Chart INT1**

.....

.....

.....

.....



ports

F

Installations

Depths

Marina →

Dolfin, Mangruino  
Dolphin

DoIs



Section



Section-designation



Sub-section



Reference to "Supplementary National Symbols" at the end of each section



Cross-reference to terms in other sections



Column 1: .... Numbering following the international "Chart Specifications of the IHO". A letter in this column, e.g. indicates a national symbol for which there is no international equivalent.



Column 2: .... Representation following the international "Chart Specifications of the IHO". In the above example, nearly true-to-scale representation on the left is used on large-scale charts as the main representation of Harbour Installations.



Column 3: .... Terms in Portuguese and English languages



Column 4: .... Nationally used representation, if different from column 2



Column 5: .... Numbering following the "Chart Specifications of the IHO" ( IHO publication S-4 part B)

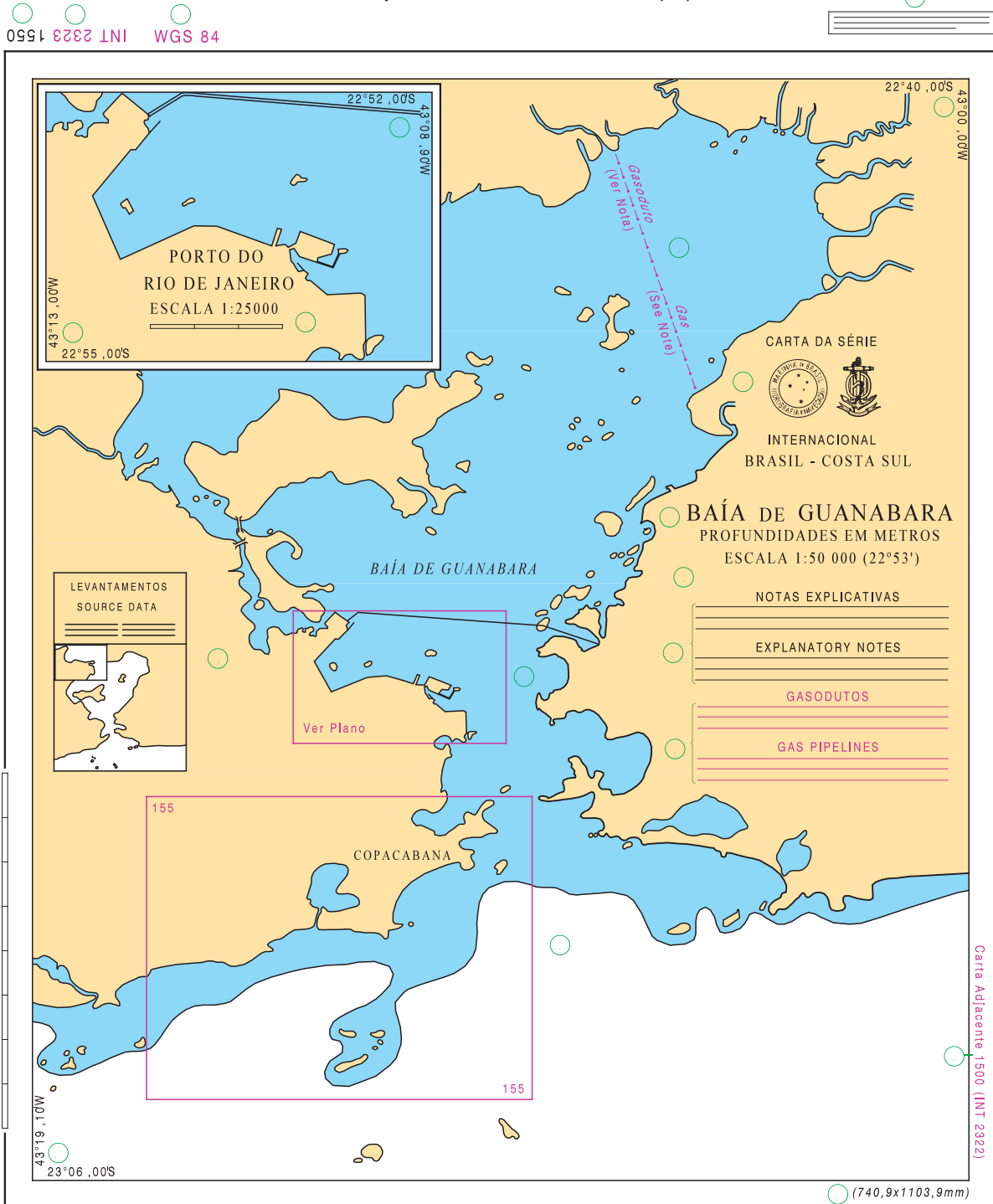


means: .... This representation or usage is obsolescent. Not shown are older representations which differ insignificantly from column 2, e.g. in shape, type, colour.

A

# Chart Number, Title and Marginal Notes

Schematic Layout of an INT Chart for illustrative purposes



Pequenas correções:

Publicada em Niterói, .....

Nº DA EDIÇÃO:

INT 2323 1550

© Diretoria de Hidrografia e Navegação - Marinha do Brasil .....






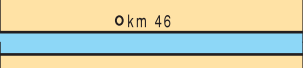
# Chart Number, Title and Marginal Notes **F**

<i>Magnetic features</i>	→	<i>Tidal data</i>	→
<input type="checkbox"/>		Chart number in national chart series	.....
<input type="checkbox"/>		Chart number in international chart series	.....
<input type="checkbox"/>		Reference ellipsoid of the chart: World Geodetic System 1984 (WGS 84)	.....
<input type="checkbox"/>		Publication note (imprint)	.....
<input type="checkbox"/>		Copyright note	.....
<input type="checkbox"/>		Note of first and current edition	.....
<input type="checkbox"/>		Small correction note	.....
<input type="checkbox"/>		Dimensions of inner borders	.....
<input type="checkbox"/>		Corner co-ordinates	.....
<input type="checkbox"/>		Chart title, may be quoted when ordering a chart, in addition to chart number	.....
<input type="checkbox"/>		Explanatory notes on chart construction, to be read before using chart	.....
<input type="checkbox"/>			.....
<input type="checkbox"/>		Seals: In the example, the national and International Hydrographic Organization seals show that this national chart is also an international one. Reproductions of International charts of other nations (facsimile) have the seals of the original producer (left), publisher (centre), and the IHO (right). National charts have the national seal only.	.....
<input type="checkbox"/>		Scale of chart at stated latitude. The scale is precisely as stated only at the latitude quoted	.....
<input type="checkbox"/>		Linear scale on large-scale charts	.....
<input type="checkbox"/>		Linear border scale on large-scale coastal charts. On small-scale charts, the latitude border should be used to measure nautical miles	.....
<input type="checkbox"/>		Cautionary notes (if any). Information on particular features, to be read before using chart	.....
<input type="checkbox"/>		Source data diagram (if any). For attention of navigators: be cautious where surveys are inadequate	.....
<input type="checkbox"/>		Reference to a large-scale chart	.....
<input type="checkbox"/>		Reference to an adjoining chart of similar scale	.....
<input type="checkbox"/>		Instruction to refer to complementary nautical publications	.....

# B

## Positions, Distances, Directions, Compass Roses

Geographical Positions			
		Latitude	.....
		Longitude	.....
		International Meridian (Greenwich)	.....
		Degree(s)	....
		Minute(s) of arc	....
		Second(s) of arc	....
	PA	Approximate position	....
	PD	Doubtful position	....
		North	.....
		East	.....
		South	.....
		West	.....
		Northeast	.....
		Southeast	.....
		Northwest	.....
		Southwest	.....

Control Points			
		Triangulation point	.....
		Observation spot	.....
		Fixed point	.....
		Benchmark	.....
		Boundary mark	....
		Distance along Waterway, no visible marker	....
		Distance along Waterway, With visible marker	....

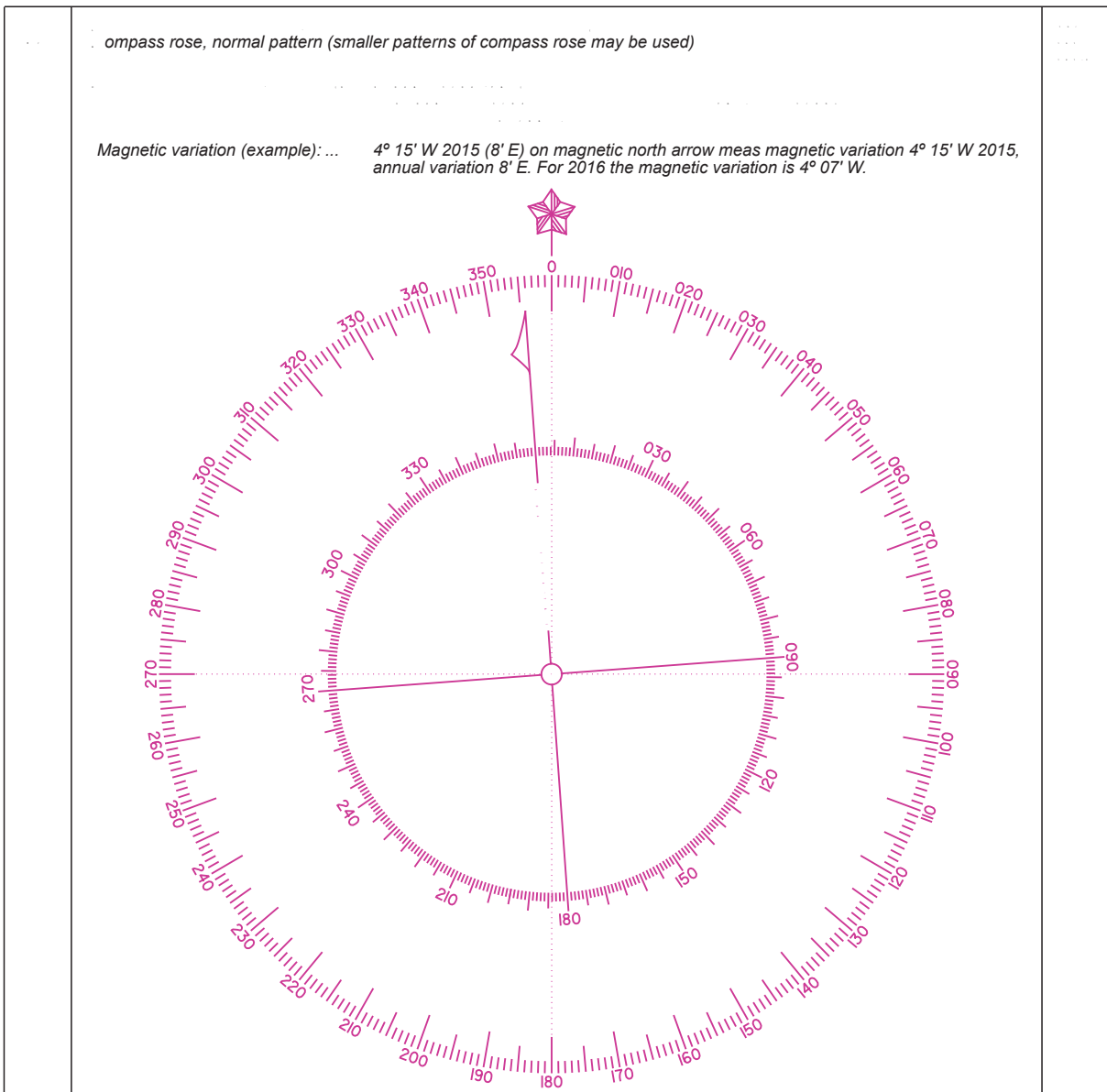
*Symbolised Positions (Examples)*

	<p>○ Mast    ⊙ MAST    ☆</p>			
	<p>○ Mast PA</p>			


**B**

*Positions, Distances,  
Directions, Compass Rose*

		Increasing	
		Annual change	
		Deviation	
		Note of magnetic variation, in position	
		Note of magnetic variation, out of position	





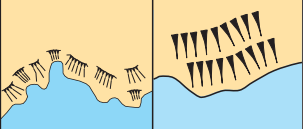
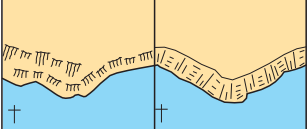




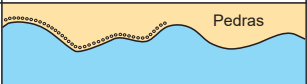
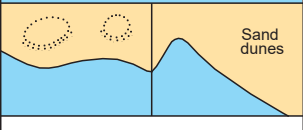
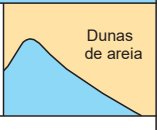
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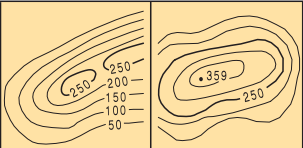


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## C Feições Naturais



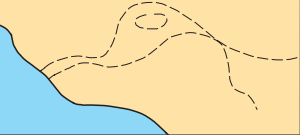


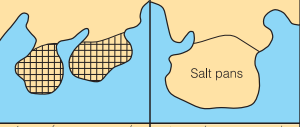
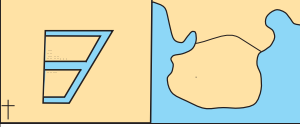
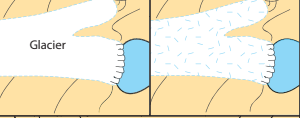

## Natural Features

Linha da Costa		Coastline		
Estirâncio Foreshore → I - J				
1		Linha de costa levantada <i>Coastline, surveyed</i>	310,1 310,2	
2		Linha de costa aproximada ou não levantada adequadamente <i>Unsurveyed (or approximate) coastline</i>	311	
3		Costa escarpada, Penhascos, Barreiras <i>Steep coast, Steep coast with rocky cliffs, Cliffs</i>		312,1
4		Outeiros <i>Hillocks</i>	312,1	
5		Costa baixa <i>Flat coast</i>	312,2	
6		Costa arenosa <i>Sandy shore</i>	312,2	
7		Costa rochosa, pedregosa <i>Stony shore</i>		312,2
8		Colinas arenosas, Dunas <i>Sandhills, Dunes</i>		312,3

Relevo		Relief	
Plano de referência para altitudes Plane of reference for heights → H			
10		Curvas de nível e altitude determinada do pico <i>Contour lines with spot height</i>	351,3-6 352,2
11		Altitudes determinadas dos picos <i>Spot heights</i>	352,1 352,2
12		Curvas de nível e altitude aproximadas <i>Approximate contour lines with approximate height</i>	351,4-6 352,3

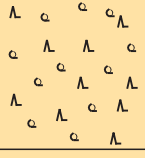




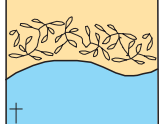


## Natural Features **C**

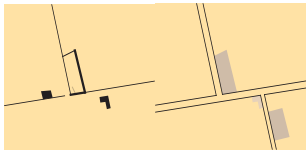
14		Approximate height of top of trees (above height datum)	352,4
----	---	--	-------

Feições Aquáticas, Lava		Water Features, Lava	
20		River, Stream	 353,1 353,2
21		Intermittent river	353,3
22		Rapids, Waterfalls	353,5
23		Lakes	353,6
24		Salt pans	 353,7
25		Glacier	353,8
26		Lava flow	.....

C

Natural Features

Vegetation					
	Wooded	Woods in general			
		Unspecified tree			
		Conifer			
		Palm			
		Mangrove			
		Marsh, Swamp			





■ Nome

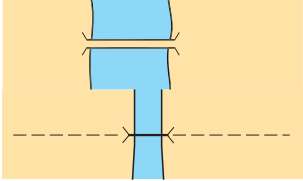


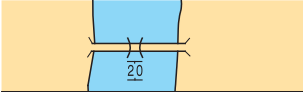
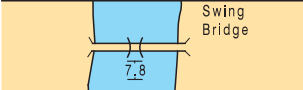
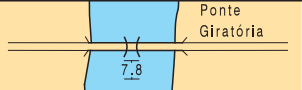
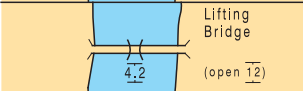
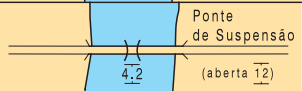
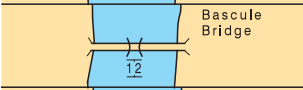
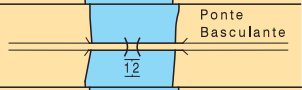
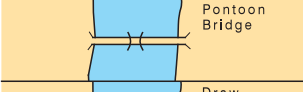

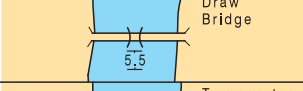
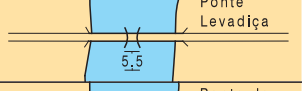
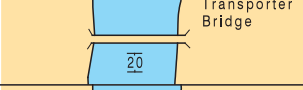
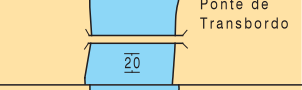
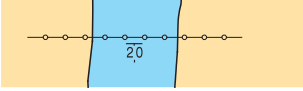



Nome



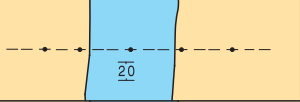
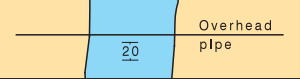
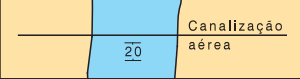
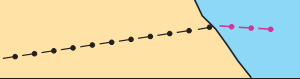
...				Airport, Airfield		.....
...				Heliport, Helipad		.....

**Other Cultural Features**

.....		Fixed bridge	.....
.....		Footbridge, fixed bridge on smaller scale charts	.....
.....		Vertical clearance ( see introduction)	.....
.....		Opening bridge (in general) with vertical clearance	.....
.....		Swing Bridge Swing bridge with vertical clearance	 Ponte Giratória
.....		Lifting Bridge Lifting bridge with vertical clearance (closed and open)	 Ponte de Suspensão (aberta 12)
.....		Bascule Bridge Bascule bridge with vertical clearance	 Ponte Basculante
.....		Pontoon Bridge Pontoon bridge	 Ponte sobre Pontões
.....		Draw Bridge Draw bridge with vertical clearance	 Ponte Levadiça
.....		Transporter Bridge Transporter bridge with vertical clearance below fixed structure	 Ponte de Transbordo
.....		Overhead transporter, Aerial cableway, Conveyor belt with vertical clearance	 (20m)
.....		Overhed power cable with pylons and physical vertical clearance	.....











## Edificações











Cultural Features **D**

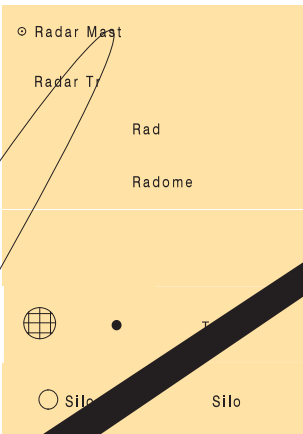
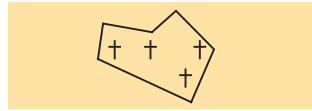
27		Cabo aéreo, Linha telefônica ou telegráfica com vão livre vertical <i>Overhead cable, Telephone line, Telegraph line with vertical clearance</i>		382 382,2
28		Canalização aérea com vão livre vertical <i>Overhead pipe with vertical clearance</i>		383
29		Oleoduto, Gasoduto (em terra) <i>Pipeline on land</i>		377

E

Landmarks










General				
Plane of reference for heights → H		Lighthouses → P	Beacons → Q	
◆ Factory	 ○ Hotel	Examples of landmarks	◆ Fábrica	 ○ Hotel
◆ FACTORY	 WATER TR	Examples of conspicuous landmarks (Capitals indicate that it is conspicuous)	◆ FÁBRICA	 CX. D'ÁGUA
○ HOTEL			○ HOTEL	
		Pictorial symbols (in true position)		
		Sketches, Views (out of position)		
	 (30)	Height of top of a structure above height datum		
	 (30)	Height of a structure above ground level		

Supplementary national symbols: a - e			Landmarks
		Church, Prominent chapel	
	 Tr	Church tower	
	 Sp	Church spire	
	 Cup	Church cupola	
		Temple, Pagoda, Shrine, Marabout, Joss house	








**E**


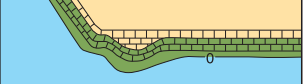
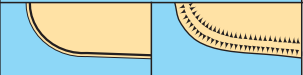



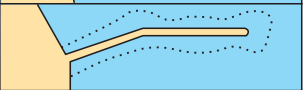
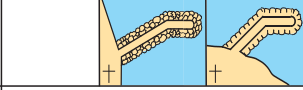
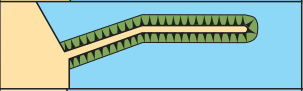
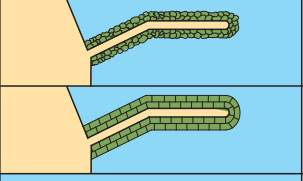


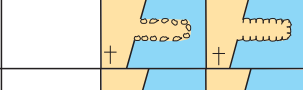
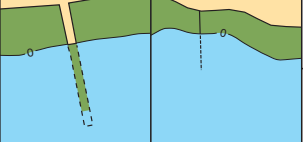
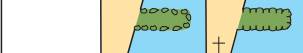
**Landmarks**






		Fortified structure (on large-scale charts)		
		Castle, Fort, Blockhouse (on smaller scale charts)	+	 Fte.
		Battery, Small fort (on smaller scale charts)		
		Quarry (on large-scale charts)		
		Quarry (on smaller scale charts)		
		Mine		
		Caravan site		
		Camping site (including caravans)		

*Supplementary National Symbols*

		Mast		
		Stadium		
		Any kind of station	 <small>Tr Tr.Tv Tr.R</small>	
		Monastery, Convent		
		Cross, calvary	 Cruz	

# Ports F

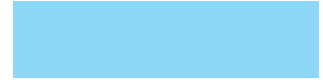
Supplementary national symbols:		Protection Structures	
	Dyke, Levee, Berm		
	Seawall (on large-scale charts)		
	Seawall (on smaller scale charts)		
	Causeway		
	Breakwater (in general)		
	Breakwater (loose boulders, tetrapods, etc.)		
	Breakwater (slope of concrete or masonry) .....		
	Training wall (partly submerged at high water)		
	Groyne (always dry)		
	Groyne (partly submerged at high water)		

Harbour Installations			
Depths	→ I	Anchorage, limits → N	Beacons and other fixed marks → Q Marina → U
		Fishing harbour	
		Boat Harbour, Marina	
		Yacht berths without facilities	
		Yacht club, Sailing club	

F



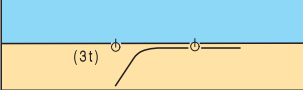
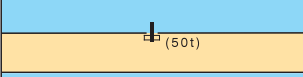

Ports

	Mole (with berthing facility)		
	Quay, Wharf		
	Pier, Jetty		
	Promenade pier		
	Pontoon		
	Landing for boats		
	Steps, Landing stairs		
	Designation of berth		
	Dolphin		
	Slipway, Patent slip, Ramp		
	Gridiron, Scrubbing grid		
	Dry dock, Graving dock		
	Floating Dock		
	Non-tidal basin, Wet dock		
	Tidal basin, Tidal harbour		








**F**

**Ports**

...		Transit shed, Warehouse (with designation)		.....
...		Timber yard		.....
.....		Crane with lifting capacity, Travelling crane (on railway)		.....
.....		Container crane with lifting capacity		.....
.....		Sheerlegs (conspicuous)		.....

**Public Buildings**

...		Harbour Master's office		.....
...		Customs office		.....
.....		Health office, Quarantine building		.....
.....		Hospital		.....
...		Post office		.....

# Tides, Currents **H**

Supplementary national symbols:		a - d	Terms Relating to Tidal Levels	
			<i>Chart Datum, Datum for sounding reduction</i>	
			<i>Lowest Astronomical Tide</i>	
			<i>Highest Astronomical Tide</i>	
			<i>Mean Low Water</i>	
			<i>Mean High Water</i>	
			<i>Mean Sea Level</i>	
			<i>Height datum, Land survey datum</i>	
			<i>Mean Low Water Springs</i>	
			<i>Mean High Water Springs</i>	
			<i>Mean Low Water Neaps</i>	
			<i>Mean High Water Neaps</i>	
			<i>Mean Lower Low Water</i>	
			<i>Mean Higher High Water</i>	
			<i>Mean Higher Low Water</i>	
			<i>Mean Lower High Water</i>	
			<i>Spring tide</i>	
			<i>Neap tide</i>	

Tidal Levels referred to Datum of Soundings

Place	Heights in metres above datum			
	MHWS	MHWN	MLWN	MLWS
	MHHW	MLHW	MHLW	MLLW

INFORMAÇÕES SOBRE A MARÉ

Lugar	HWF&C	Alturas em metros acima do NR				
		MHWS	MHWN	MLWN	MLWS	
		MHHW	MLHW	MHLW	MLLW	MSL

Tidal streams referred to ...

Correntes de maré referidas a...












Hours Geographical Position

Horas Posição geográfica

Directions of streams (degrees)  
High Water

Preamar  
Direção da corrente (gr)

0

Tidal Streams and Currents				
Breakers	K	Tidal Gauge	T	
...		Flood tide stream with spring rate		.....
...		Ebb tide stream with mean spring rate		.....
...		Current in restricted waters		.....
...		Ocean current with rates and seasons		.....
...		Overfalls, Tide rips, Races		.....
...		Eddies		.....
...		Position of tabulated tidal streams data with designation		.....
...				.....

Supplementary National Symbols				
		High water		
		Low water		
		Mean tide level		
		High Water Full and Change		

Depths

General			
	ED	Existence doubtful	
	SD	Sounding doubtful	
	Rep	Reported, but not confirmed	Com
	Rep (2015)	Reported with year of report, but not confirmed	Com (2015)

Soundings			
Plane of reference for depths	→ H	Plane of reference for heights	→ H
12	9 <sub>7</sub>	Sounding in true position	
(4 <sub>8</sub> ) + (12)		Sounding out of position	
	(4 <sub>7</sub> )	Least depth in narrow channel	
$\frac{\cdot}{200}$		No bottom found at depth shown	
12	9 <sub>7</sub>	Soundings which are unreliable or taken from a smaller scale source	
		Drying heights and contours above Chart Datum	
		Natural Watercourse ( in intertidal area)	

# Depths

		Supplementary national symbols: a	Depths in Fairways and Areas	
Plane of reference for depths		→ H		
		Limit of dredged area		...
		Dredged channel or area with depth of dredging in metres and decimetres		...
		Dredged channel or area with depth and year of the latest control survey		.....
		Dredged channel or area with maintained depth		...
		Depth at chart datum, to which an area has been swept by wire drag. The latest date of sweeping may be shown in parentheses		.....
		Unsurveyed or inadequately surveyed area; Area with inadequate depth information		.....



Depth Contours

		<p><i>Drying contour</i></p> <p><i>Low water line</i></p> <p><i>One or two lighter blue tints may be used instead of the 'ribbons' of tint at 10 or 20 m</i></p>	
	<p>10</p> <p>50</p>	<p><i>Approximate depth contour</i></p>	
<p><i>Note: The extent of the blue tint varies with the scale and purpose of the chart, or its sources.</i></p>			

Supplementary National Symbols






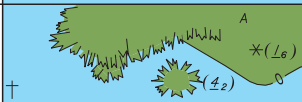
		<p><i>Swept channel, Dredged channel or area with guaranteed minimum depth indicated</i></p>	<p><i>10, (2015)</i></p> <p>†</p>

## Nature of the Seabed **J**

<i>Types of Seabed</i>				
<i>Rocks</i> → <b>k</b>				
	<b>S</b>	<i>Sand</i>	†	<b>A</b>
	<b>M</b>	<i>Mud</i>	†	<b>L</b>
	<b>Cy</b>	<i>Clay</i>	†	<b>Arg</b>
	<b>Si</b>	<i>Silt</i>	†	<b>Ld</b>
	<b>St</b>	<i>Stones</i>	†	<b>P</b>
	<b>G</b>	<i>Gravel</i>	†	<b>C</b>
	<b>P</b>	<i>Pebbles</i>	†	<b>S</b>
	<b>Cb</b>	<i>Cobbles</i>	†	<b>Mat</b>
	<b>R</b>	<i>Rock, Rocky</i>	†	<b>R</b>
	<b>Bo</b>	<i>Boulder (s)</i>	†	<b>P e d</b>
	<b>Co</b>	<i>Coral</i>	†	<b>Cor</b>
	<b>Sh</b>	<i>Shells (skeletal remains)</i>	†	<b>Con</b>
	<b>S/M</b>	<i>Two layers, e.g. sand over mud</i>	†	<b>A/L</b>
	<b>fs. M. Sh</b> <b>fs M Sh</b>	<i>Admixtures are shown behind the main constituent of the deposits, e.g. fine sand with mud and shells</i>	†	<b>Af. L. Con</b> <b>Af L Con</b>
	<b>Wd</b>	<i>Weed (including kelp)</i>	†	<b>Erv.Mar</b>
		<i>Kelp, Weed</i>		
	<b>Sg</b>	<i>Seagrass</i>		
		<i>Sandwaves</i>		
	<b>I</b>	<i>Spring in seabed</i>		

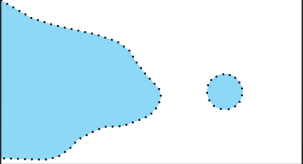
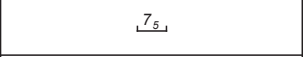

**J**

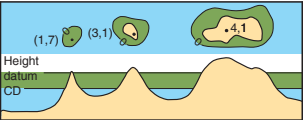
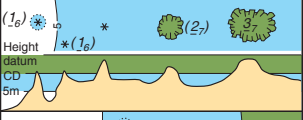
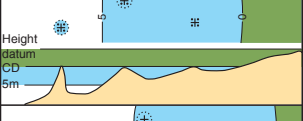
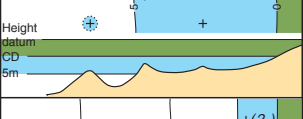
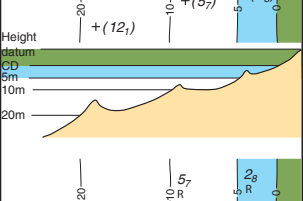
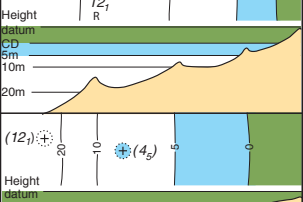
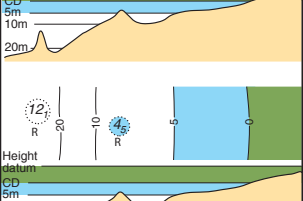
*Nature of the Seabed*

		<i>Types of Seabed, Intertidal Areas</i>	
	Areas with stones and gravel		
	Rocky area, which covers and uncovers		
	Coral reef, which covers and uncovers		

			<i>Qualifying Terms</i>		
...	<i>f</i>	<i>Fine</i>	+	<i>Af</i>	
...	<i>m</i>	<i>Medium</i>	} <i>Only used in relation to sand</i>	+	
...	<i>c</i>	<i>Coarse</i>		+	<i>Am</i>
...	<i>bk</i>	<i>Broken</i>		+	<i>Ag</i>
...	<i>sy</i>	<i>Sticky</i>	+	<i>q</i>	
...	<i>so</i>	<i>Soft</i>	+	<i>vsc</i>	
...	<i>sf</i>	<i>Stiff</i>	+	<i>ml</i>	
...	<i>v</i>	<i>Volcanic</i>	+	<i>rig</i>	
...	<i>ca</i>	<i>Calcareous</i>	+	<i>vul</i>	
...	<i>h</i>	<i>Hard</i>	+	<i>cal</i>	
			+	<i>d</i>	

# Rocks, Wrecks, Obstructions and Aquaculture **K**

General			
	<i>Danger line, in general</i>		.....
	<i>Swept by wire drag or diver</i>		.....
	<i>Depth unknown, but considered to have a safe clearance to the depth shown</i>		.....

Supplementary national symbols: <b>a</b>		Rocks	
Plane of reference for heights → H		Plane of reference for depths → H	
	<i>Rock (islet) which does not cover, height above height datum</i>		.....
	<i>Rock which covers and uncovers, height above chart datum</i>		.....
	<i>Rock awash at the level of chart datum</i>		.....
	<i>Dangerous underwater rock of uncertain depth</i>		.....
	<i>Dangerous underwater rock of known depth inside the corresponding depth area</i>		.....
	<i>Dangerous underwater rock of known depth outside the corresponding depth area</i>		.....
	<i>Dangerous underwater rock of known depth outside the corresponding depth area</i>		.....



Rochas, Cascos Soçobrados, **K** Rocks, Wrecks, Obstructions and Aquaculture

28		Casco soçobrado perigoso à navegação (profundidade desconhecida) <i>Dangerous wreck, depth unknown</i>		422,6
29		Casco soçobrado, não perigoso à navegação <i>Sunken wreck not dangerous to navigation</i>		422,6
30		Casco soçobrado cuja menor profundidade é desconhecida, porém é considerado haver segurança até a profundidade indicada <i>Wreck, least depth unknown, but considered to have a safe clearance to the depth shown</i>		422,5
31.1		Área de restos de casco soçobrado ou de fundo sujo, não-perigoso à navegação, mas que deve ser evitada para fundeio, pesca de arrasto, etc. <i>Remains of a wreck or other foul area, non-dangerous to navigation but to be avoided by vessels anchoring, trawling, etc.</i>		422,8
31.2				

Obstruções		Obstructions	
Plano de referência para profundidades <i>Plane of reference for depths</i> → H		Algas e ervas marinhas → I	
		Instalações Submarinas → L	
40			422,10
41			422,10
42			422,10
43.1			422,10
43.2			

**K**









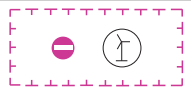

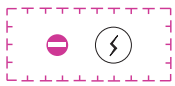
*Rocks, wrecks, obstructions and aquaculture*









		Fishing stakes		
		Fish trap area, tunny nets area		
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px dashed black; padding: 2px; text-align: center;">Fish traps</div> <div style="border: 1px dashed black; padding: 2px; text-align: center;">Tunny nets</div> </div>	Shellfish beds	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px dashed black; padding: 2px; text-align: center;">Currais de peixe</div> <div style="border: 1px dashed black; padding: 2px; text-align: center;">Redes de peixe</div> </div>	
		Fish haven		
		Fish haven with minimum depth		
		Shellfish	<div style="border: 1px dashed pink; padding: 5px; text-align: center;">                 Leito de moluscos (Ver Nota)             </div>	
		Marine farm (on large-scale charts)		
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;"> </div> <div style="border: 1px solid black; padding: 2px; text-align: center;"> </div> </div>	Marine farm (on smaller scale charts)		

*Supplementary National Symbols*

		Non-dangerous rock, depth unknown	+	
		Foul ground	Fundo sujo	





## Offshore Installations

<i>General</i>				
<i>Areas, limits</i> → <b>P</b>				
	<i>EKOFISK OILFIELD</i>	Name of oilfield or gasfield	<i>BACIA PETROLÍFERA DE CAMPOS Exemplo</i>	.....
		Platform with designation/name		.....
		Limit of safety zone around offshore installation		.....
		Limit of development area		.....
		Wind turbine, Floating wind turbine,		.....
		Offshore wind farm		.....
		Offshore wind fam (floating)		.....
		Offshore wind farm with restricted area		.....
		Wave farm, Renevable energy device		.....
		Wave farm, Renevable energy device in restricted area		.....
















<i>Platforms and Moorings</i>				
<i>Mooring buoys</i> → <b>Q</b>				
		Production platform, Platform, Oil derrick		.....
		Flare stack (at sea)		.....
		Single Point Mooring (SPM), including Single Anchor Leg Mooring (SALM), Articulated Loading Column (ALC)		.....
		Observation/research platform (with name)		.....
			Disused platform	
		Artificial island		.....

L






Offshore Installations

		Oil or gas installation buoy, Catenary Anchor Leg Mooring (CALM), Single Buoy Mooring (SBM)		
		Moored storage tanker		Navio cisterna
		Mooring ground tackle		

Underwater Installations

Underwater Installations					
Plane of reference for depths		→ H	Obstructions	→ K	
		Well	Suspended well, depth over wellhead unknown		Poço
	 	Well	Suspended well, with depth over wellhead	 	Poço
			Wellhead with height above the sea floor		Well (5,7)
			Site of cleared platform		
		Pipe	Above-water wellhead (Lit or unlist)		Poço
		Turbine	Underwater turbine		Turbina
		FI(2) Underwater Turbine			Lp(2) Turbina Submersa
		ODAS	Subsurface Ocean (ographic) Data Acquisition System		

Submarine Cables

		Submarine cable		
		Submarine cable area		
		Submarine power cable		
		Submarine power cable area		
		Disused submarine cable		


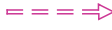







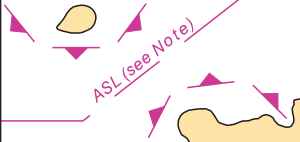
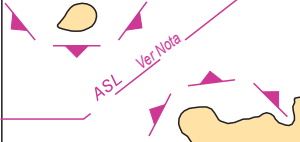

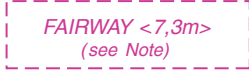


M

Tracks and Routes

Supplementary national symbols:		b	
Tracks marked by lights → P		Leading beacons → Q	

# Tracks and Routes M

Routeing Measures				
Basic Symbols				
		Established (mandatory) direction of traffic flow		
		Recommended direction of traffic flow		
		Separation line (large-scale, smaller scale)		
		Separation zone		
		Limit of restricted area (e.g. area to be avoided - ATBA)		
		Limit of routeing measure		
		Precautionary area		
				
		Archipelagic sea lane (ASL); axis line and limit beyond which vessels shall not navigate		
		Fairway designated by regulatory authority, with minimum depth		
		Fairway designated by regulatory authority, with maximum authorised draught		



Supplementary national symbols:

a

20.2

Traffic separation scheme (TSS), traffic separated by separation zone

Traffic separation scheme, traffic separated by natural obstructions

20.3

Traffic separation scheme with outer separation zone separating traffic using scheme from traffic not using it

Traffic separation scheme, roundabout with separation zone

Traffic separation scheme with "crossing gates"

Traffic separation schemes crossing, without designated precautionary area

Precautionary area

25.1

Inshore traffic zone (ITZ) with defined end limits

Inshore traffic zone without defined end limits

Recommended direction of traffic flow, between traffic separation schemes

Recommended direction of traffic flow for ships not needing a deep water route

Deep water route (DW), as part of one-way traffic lane

Two-way deep water route with minimum depth stated

Deep water route, centre line as recommended one-way or two-way track

Recommended route (often marked by centreline buoys)

Two-way route with one-way sections






Area to be avoided (ATBA), around navigational aid



Area to be avoided, e.g. because of danger of stranding



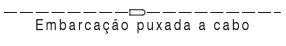
Boundaries of routing measures


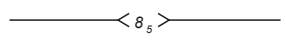
**M**

*Tracks and Routes*

Supplementary national symbols:		b	Radar Surveillance Systems	
		Radar Surveillance Station	<i>Radar traffic surveillance station</i>	
			<i>Radar range</i>	
			<i>Radar reference line</i>	
			<i>Radar reference line coinciding with a leading line</i>	

Radio Reporting Points				
			<i>Radio reporting (calling-in or way) points showing direction(s) of vessel movement with designation (if any) and VHF-channel</i>	
			<i>Radio reporting line</i>	



Ferries				
			<i>Ferry Route</i>	
			<i>Cable ferry Route</i>	

Supplementary National Symbols				
		<i>Fairway limits</i>		
		<i>Channel with least depth between the arrows</i>		

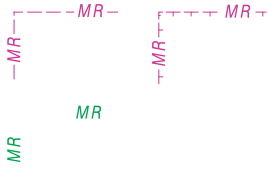


				<i>General</i>
<i>Dredged and swept areas</i>	<b>I</b>	<i>Submarine cables, submarine pipelines</i>	<b>L</b>	<i>Tracks, routes</i> <b>M</b>



1111

.....		<i>Anchorage area for periods up to 24 hours</i>		
.....		<i>Explosives anchorage area</i>		
.....		<i>Quarantine anchorage area</i>		
.....		<i>Reserved anchorage area</i>		
<p>.....  te: ..... Anchors as part of the limit symbol are not shown for small areas. Other types of anchorage areas may be shown.</p>				
.....		<i>Seaplane operating area</i>		.....
.....		<i>Anchorage for seaplanes</i>		.....

		<i>Supplementary national symbols:</i>	<b><i>Restricted Areas</i></b>	
.....		<i>Anchoring prohibited</i>		..... ..... .....
.....		<i>Fishing prohibited</i>		..... .....
.....		<i>Limit of nature reserve</i>  <i>Bird sanctuary</i>		.....
.....		<i>Seal sanctuary</i>		

	<p><i>Non-specific nature reserve, National parks, Marine reserves (MR)</i></p>		
	<p><i>Particularly Sensitive Sea Area (PSSA)</i></p> <p><i>The coloured tint band may vary in width between 1 - 5 mm</i></p>		
		<p><i>Explosives dumping ground</i></p>	
		<p><i>Explosives dumping ground (disused), Foul (explosives)</i></p>	
		<p><i>Dumping ground for chemical wastes</i></p>	
		<p><i>Degaussing range</i></p>	
		<p><i>Maximum speed</i></p>	

**Military Practice Areas**




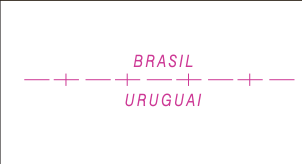
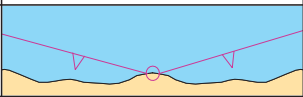


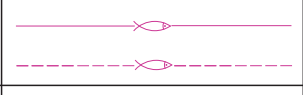







*Firing practice area*

*Military restricted area, entry prohibited*

*Mine-laying practice area*

N

Areas and Limits

Supplementary national symbols:		International Boundaries and National Limits	
	DANMARK DEUTSCHLAND	International boundary on land	
	DANMARK DEUTSCHLAND	International maritime boundary	
		straight territorial sea baseline with base point	
		Seaward limit of territorial sea	
		Seaward limit of contiguous zone	
		Limits of fishery zones	
	United Kingdom Continental Shelf	Limit of continental shelf	
	FRANCE EEZ	Limit of exclusive economic zone (EEZ)	
		Customs limit	
	Harbour Limit	Harbour limit	

# Areas and Limits **N**

		Supplementary national symbols:	Various Limits
		L	
		Limit of sea ice (pack ice) seasonal	
		Spoil ground	
		Spoil ground (disused)	
		Dredging Extraction area	
		Cargo transhipment area	

Supplementary National Symbols			
		Danger area	
		Limit of icebergs	
		Embankment area	
		Districted or province limit	



# Lights P

Light Characters					
Light characters on light buoys → Q					
	Abbreviation		Class of light	Illustration	Period shown
			Fixed		
<i>Occulting (total duration of light longer than total duration of darkness)</i>					
			Single-occulting		
			Group-occulting		
			Composite group-occulting		
<i>Isophase (duration of light and darkness equal)</i>					
			Isophase		
<i>Flashing (total duration of light shorter than total duration of darkness)</i>					
			Single-flashing		
			Group-flashing		
			Composite group-flashing		
			Long-flashing (flash 2 s or longer)		
<i>Quick (repetition rate of 50 to 79 - usually either 50 or 60 - flashes per minute)</i>					
			Continuous quick		
			Group quick		



P

Lights

Abbreviation		Class of light	Illustration	Period shown
<i>Very quick (repetition rate of 80 to 159 - usually either 100 or 120 - flashes per minute)</i>				
		Continuous very quick		
		Group very quick		
<i>Ultra quick (repetition rate of 160 or more - usually 240 to 300 - flashes per minute)</i>				
		Continuous ultra quick		
		Interrupted ultra quick		
		Morse code		
		Fixed and flashing		
		Alternating		
<b>Colours of Lights and Marks</b>				
		White (on sector- and alternating lights)	Colours of light shown	
		Red	on standard charts	
		Green		
		Blue	on multicoloured charts	
		Violet		
		Yellow	on multicoloured charts at sector lights	
		Orange		
		Amber		

# Lights P

<i>Period</i>			
.....	.....	<i>Period in seconds and tenths of Seconds</i>	.....
<i>Elevation</i>			
<i>Plane of reference for heights</i> → H		<i>Tidal levels</i> → H	
.....	.....	<i>Elevation of light given in metres</i>	.....
<i>Range</i>			
.....	.....	<i>Light with single range</i>	.....
.....	.....	<i>Light with two different ranges</i>	.....
.....	.....	<i>Light with three or more ranges</i>	.....
<i>Note:..... Charted ranges are nominal ranges given in sea miles.</i>			
<i>Disposition</i>			
.....	.....	<i>Horizontally disposed</i>	.....
.....	.....	<i>Vertically disposed</i>	.....
.....	..... △    ▽	<i>3 Lights disposed in the shape of a triangle</i>	.....

<i>Example of a Full Light Description</i>			
.....	<p><i>on standard charts</i></p>  <p>Name ☆ FI(3)WRG.15s21m15-11M</p> <p><i>Class of light: group flashing repeating a group of three flashes</i></p> <p><i>Colours: white, red, green, exhibiting the different colours in defined sectors</i></p> <p><i>Period: the time taken to exhibit one full sequence of 3 flashes and eclipses: 15 Seconds</i></p> <p><i>Elevation of focal plane above datum: 21 metres</i></p> <p><i>Nominal range: White 15M, green 11M, red between 15 and 11M</i></p>	<p><i>on multicoloured charts</i></p>  <p>Name ☆ Lp(3)BEV.15s21m15-11M</p>	.....

P

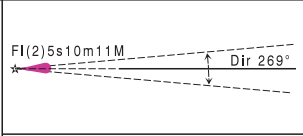
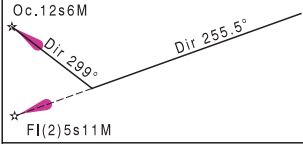
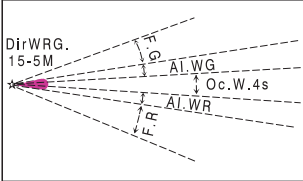
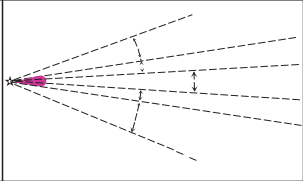
Lights

Lights Marking Fairways

Leading Lights and Lights in Line

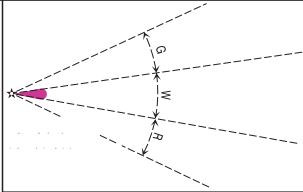
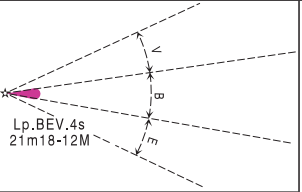
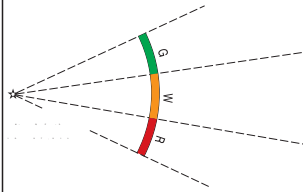
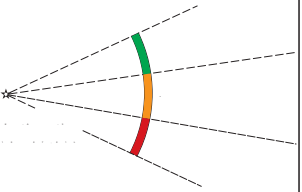




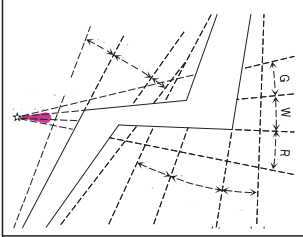
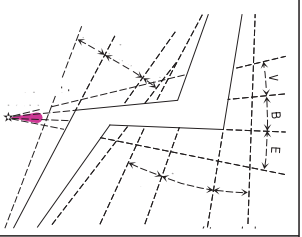
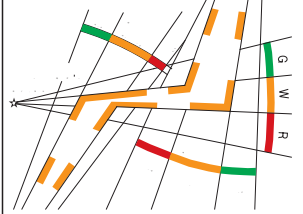
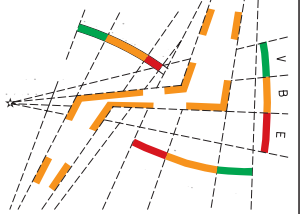
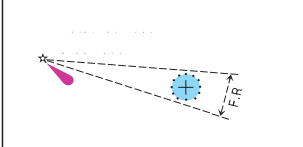
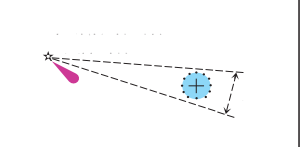
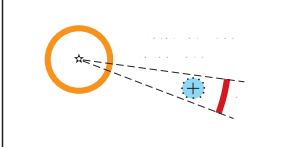
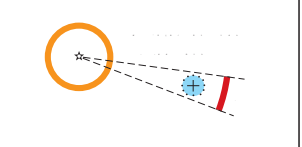
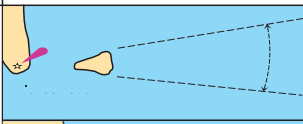
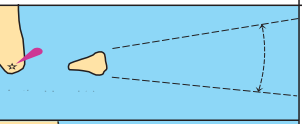
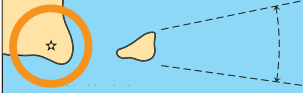

	Leading lights with leading line (firm line is the track to be followed) and arcs of visibility Bearing given in degrees and tenths of a degree		
	Leading lights with leading line (firm line is the track to be followed) and arcs of visibility, bearing given in degrees and tenths of a degree on multicoloured charts		
	Leading lights (≠ means "in line") on standard charts, bearing given in degrees and tenths of a degree		
	Leading lights (≠ means "in line") multicoloured charts, bearing given in degrees and tenths of a degree		
	Leading lights on small-scale standard charts		
	Leading lights on small-scale charts multicoloured		
	Lights in line, marking the sides of a channel on standard charts		
	Lights in line, marking the sides of a channel on multicoloured charts		
	Rear or upper light		(post) ou (sup) +
	Front or lower light		(ant) ou (inf) +

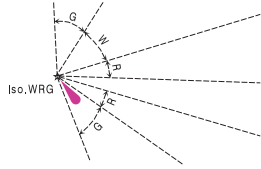
*Direction Lights*

	<p>Fl(2)5s10m11M Dir 269°</p>	<p><i>Direction light with narrow sector and course to be followed, flanked by darkness or unintensified light</i></p>		<p>..... ..... ..... .....</p>
	<p>Oc.12s6M Dir 299° Dir 255.5° Fl(2)5s11M</p>	<p><i>Direction light with course to be followed, uncharted sector is flanked by darkness or unintensified light</i></p>		
	<p>DirWRG. 15-5M AI.WG Oc.W.4s AI.WR</p>	<p><i>Direction light with narrow fairway sector flanked by light sectors of different character on multicoloured charts</i></p>		

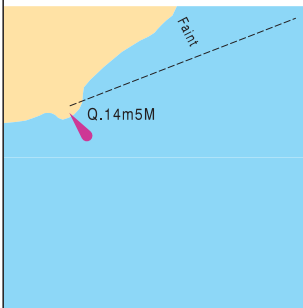
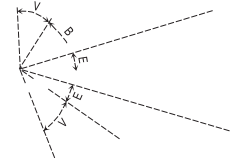
P

Lights

		Sector Lights	
	Sector light on standard charts		Lp.BEV.4s 21m18-12M
	Sector light on multicoloured charts		
	Sector light on standard charts. Sectors not charted		
	Sector light on multicoloured charts. Sectors not charted		
	Sector lights on standard charts, the white sector limits marking the sides of the fairway		
	Sector lights on multicoloured charts, the white sector limits marking the sides of the fairway		
	Main light visible all-round with red subsidiary light seen over danger on standard charts		
	Main light visible all-round with red subsidiary light seen over danger on multicoloured charts		
	All-round light with obscured sector on standard charts		
	All-round light with obscured sector on multicoloured charts		



*Light with arc of visibility deliberately restricted on standard charts*

















*Light with faint sector on standard charts*



*Light with intensified sector on standard charts*

P

Lights

				<i>Lights with Limited Times of Exhibition</i>
	 (occas)	<p><i>Lights exhibited only when specially needed (for fishing vessels, ferries) and some privately lights on standard charts</i></p>		
		<p><i>Lights exhibited only when specially needed (for fishing vessels, ferries) and some private lights on multicoloured charts</i></p>		
		<p><i>Daytime light (charted only where the character shown by day differs from that shown at night) on standard charts</i></p>		
		<p><i>Daytime light (charted only where the character shown by day differs from that shown at night) on multicoloured charts</i></p>		
		<p><i>Fog light (exhibited only in fog, or character changes in fog) on standard charts</i></p>		
		<p><i>Fog light (exhibited only in fog, or character changes in fog) on multicoloured charts</i></p>		
	 (temp)	<p><i>Temporary</i></p>		
	 (exting)	<p><i>Extinguished</i></p>		

# Lights P

<i>Special Lights</i>				
<i>Flare stack (at sea)</i> → L	<i>Flare stack (on land)</i> → E	<i>Signal stations</i> → T		
	<i>Aero light (may be unreliable)</i>			
	<i>Air obstruction light of low intensity (e.g. on radio mast)</i>			
	<i>Fog detector light</i>			
	<i>Floodlit, floodlighting of a structure</i>			
	<i>Strip light</i>			
	<i>Private light other than one exhibited occasionally</i>			
	<i>Synchronized Light</i>			

Q

Buoys and Beacons

Buoys and Beacons				
IALA Maritime Buoyage System, which includes beacons → Q				
		Position of buoy or beacon		
Colours of Buoys and Beacon Topmarks				
→ P				
		Green and black (symbols filled black)		
		Singles colours other than green and black		
		Multiple colours in horizontal bands, the colour sequence is from top to bottom		
		Multiple colours in vertical or diagonal stripes, the darker colour is given first		
: Retroreflecting material may be fitted to some unlit marks. Charts do not usually show it. Under IALA Recommendations, black bands will appear blue under a spotlight.				
Lighted Marks				
Marks with fog signals → R				
		Lighted marks on standard charts		
		Lighted marks on multicoloured charts		
opmarks and Radar Reflectors				
For application of topmarks within the IALA System → Q		For other topmarks (special purpose buoys and beacons) → Q		
		IALA-System buoy topmarks (beacon topmarks shown upright)		
		Beacon with topmark, colour, radar reflector and designation		
		Buoy with topmark, colour, radar reflector and designation		
ote:..... Radar reflectors on floating marks usually are not charted.				

# Buoys and Beacons Q


Buoy				
Features common to buoys and beacons → Q				
Supplementary national symbols:			b,d	Shapes of Buoys
			Conical buoy, nun buoy, ogival buoy	
			Can buoy, cylindrical buoy	
			Spherical buoy	
			Pillar buoy	
			Spar buoy, spindle buoy	
			Barrel buoy, tun buoy	
			Superbuoy	

Minor Light Floats				
			Light float on standard charts	
	Fl.G.3s G Name		Light float on multicoloured charts	
			Light vessel	

Mooring Buoys				
Oil or gas installation buoy → L		visitors' (small craft) mooring → L		
		Mooring buoys		
	Fl.Y.2,5s	Lighted mooring buoy (example) on standard charts		
	Fl.Y.2,5s	Lighted mooring buoy (example) on multicoloured charts		
	① ②	Trot, mooring buoys with ground tackle and berth numbers		












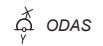



Q

Buoys and Beacons


		Mooring buoy with telegraphic or telephonic communication		
	Small Craft Moorings	Numerous moorings (example)	Amarração para pequenas embarcações	

Special Purpose Buoys

Note:..... Shapes of buoys are variable, Lateral or cardinal buoys may be used in some situations. The use of the X- topmark is optional.

	 DZ	Firing danger area (Danger Zone) buoy	 ZP	
	 DG	Degaussing Range buoy	 DG	
	 Cable	Cable buoy	 Cabo	
		Spoil ground buoy		
		Buoy marking outfall		
	 ODAS  ODAS	ODAS buoy (Ocean Data Acquisition System), Data collecting buoy of superbuoy size	 ODAS	
	 (Apr-Oct)	Seasonal buoy (example)	 abr-out	

Supplementary National Symbols

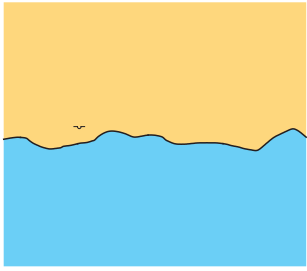
		Buoy privately maintained (example)	 part	

# Buoys and Beacons Q

Supplementary national symbols: a		Beacons	
General			
Lighted beacons → P		Features common to beacons and buoys → Q	
		<i>Beacon in general, characteristics unknown or chart scale too small to show</i>	
		<i>Beacon with colour, no distinctive topmark</i>	
		<i>Beacons with colours and topmarks (examples)</i>	
		<i>Beacon on submerged rock with colours (topmark; as appropriate)</i>	

<i>Minor Impermanent Marks Usually in Drying Areas (Lateral Marks of Minor Channels)</i>			
Minor pile → F			
	<i>Pole, stake</i>		
		<i>Perch, withy</i>	







<i>Minor Marks, Usually on Land</i>			
Landmarks → E			
	<i>Caim</i>		
	<i>Coloured or white mark</i>		



## Buoys and Beacons Q

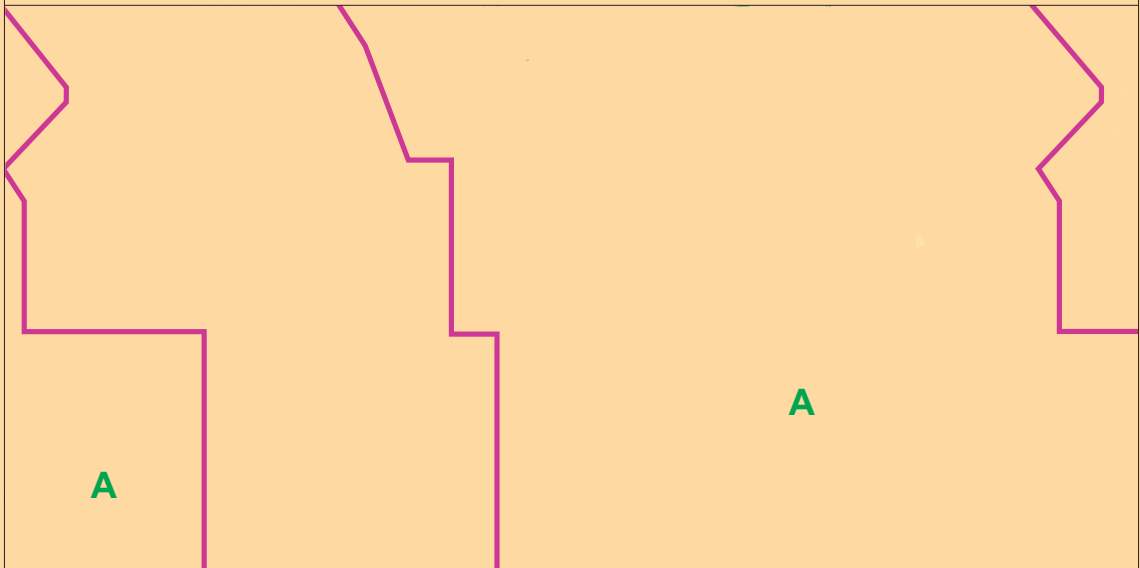


Where in force, the IALA System applies to all fixed and floating marks except landfall lights, leading lights and marks, sectored lights and major floating lights.

The standard buoy shapes are cylindrical (can) , conical , spherical , pillar , and spar , but variations may occur, for example: minor light floats . In the illustrations below, only the standard buoy shapes are used. In the case of fixed beacons (lit or unlit) only the shape of the topmark is of navigational significance.

Região A

Região B

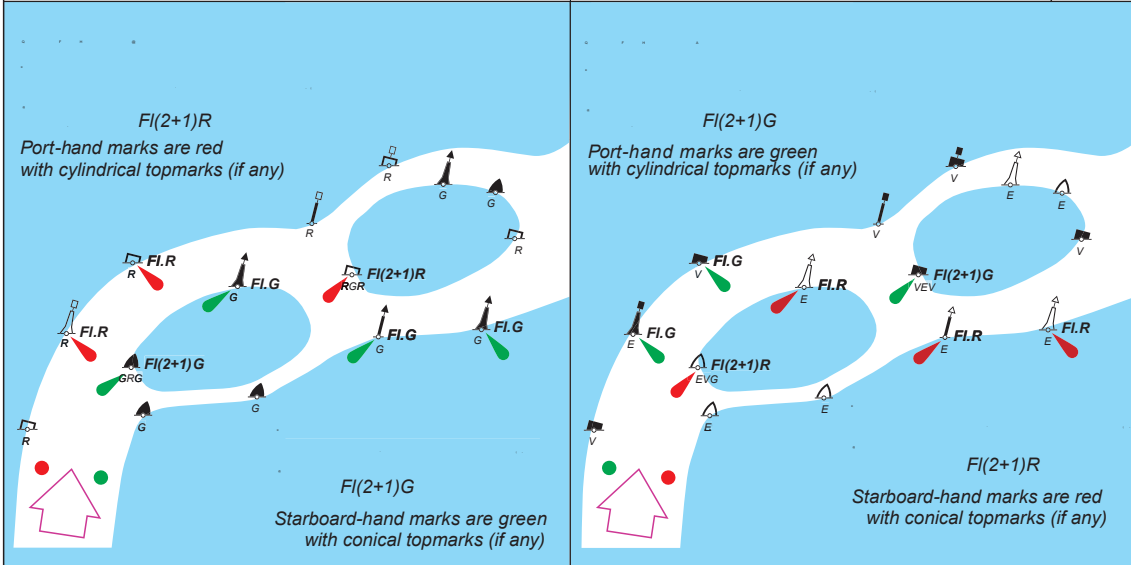


Q

Buoys and Beacons

**Lateral Marks**

are generally for well-defined channels. There are two international buoyage regions – A and B – where lateral marks differ.



A preferred channel buoy may also be a pillar or a spar. Lights of the starboard- or port-hand marks are green or red with any rhythm except FI(2+1). All marks which indicate a junction of bruch side fairway have horizontal color bands; if lit with the rhythm FI(2+1)R or FI(2+1)G.

On standard charts, the flares are in magenta.

**Direction of Buoyage**

The direction of buoyage is that taken when approaching a harbour from seaward. Along coasts, the direction is determined by a buoyage authority, normally clockwise around land masses. Symbols Showing direction of buoyage where it is not obvious.



General Symbol on standard charts



Symbol in the IALA Region A on multicoloured charts

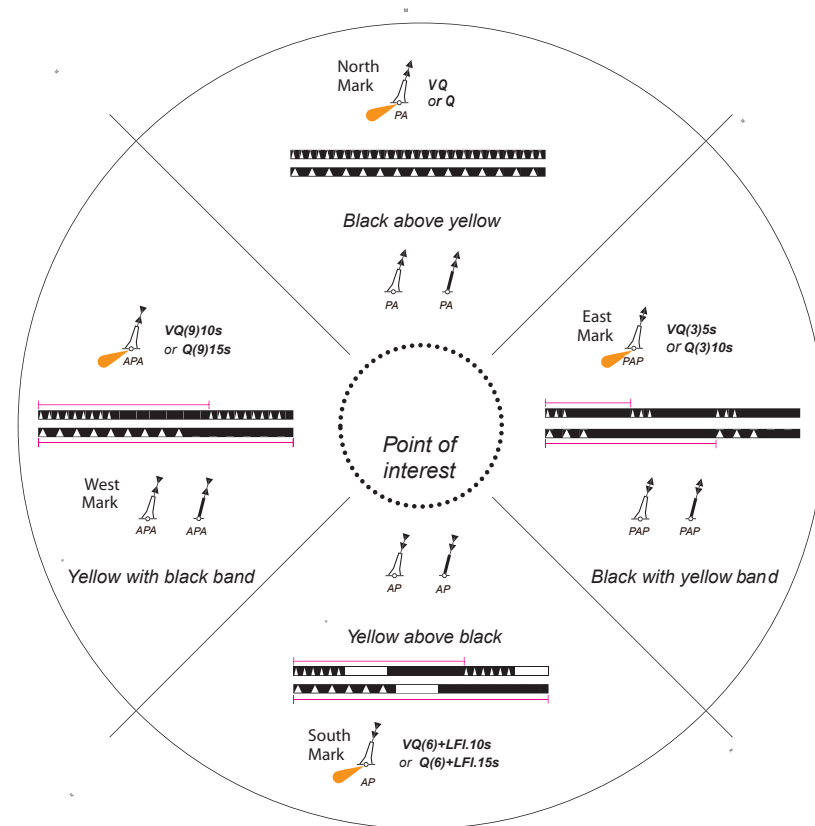


Symbol in the IALA Region B on multicoloured charts

In the illustrations below all marks are the same in Regions A and B. On standard charts, the flares will be in magenta.

## Cardinal Marks

Indicating navigable water to the named side of the marks.



Topmark: 2 black cones

Light: White

The same abbreviations are used for lights on spar buoys and beacons.  
The periods (5s, 10s and 15s) may not always be charted.

Time (seconds)

Period shown

## Isolated Danger Marks

Stationed over dangers with navigable water around them.

Body: black with red horizontal band(s); Topmark: 2 black spheres; light (if any): white



Unlit Marks



Lighted Marks on standard charts



Lighted Marks on multicoloured charts

## Safe Water Marks

such as mid-channel and landfall marks.

Body: red and white vertical stripes; Topmark (if any): red sphere; light (if any): white



Unlit Marks



Lighted Marks on standard charts



Unlit Marks on multicoloured charts

## Special Marks

not primarily to assist navigation but to indicate special features.

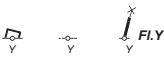
Body (shape optional): yellow; Topmark (if any): yellow x or upright cross; light (if any): yellow



Unlit Marks



Lighted Marks on standard charts



Lighted Marks on multicoloured charts



Emergency Wreck Marking buoy on standard charts



Emergency Wreck Marking buoy on multicoloured charts

# Fog Signals R




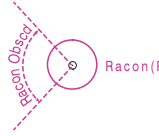
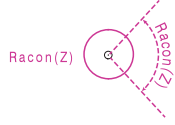
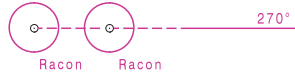
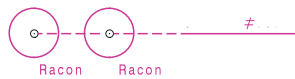
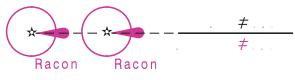



General			
Fog detector light	→ P	Fog light	→ P
		Position of fog signal, Type of fog signal not stated	

Types of Fog Signals, with Abbreviations			
		Explosive	
		Diaphone	
		Siren	
		Horn (nautophone, reed, tyfon)	
		Bell	
		Whistle	
		Gong	

Examples of Fog Signal Descriptions			
Fl.3s70m29M Siren Mo(N)60s *	Siren at a lighthouse, giving a long blast followed by a short one (N), repeated every 60 seconds	Lp.3s70m29M Sirene Mo(N)60s	
Bell *	Wave-actuated bell buoy	Sino	
Q(6)+LFl.15s Horn(1)15sWhis YB *	Light buoy, with horn giving a single blast every 15 seconds, in conjunction with a wave-actuated whistle	R(6)+LpL.15s Buzina(1)15sApito	
The fog signal symbol may be omitted when a description of the signal is given.			



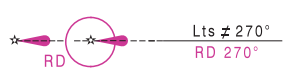














**S**

**Radar, Radio and Satellite Navigation Systems**

Radar			
Radar structures forming landmarks	→ E	Radar surveillance systems	→ M
		Coast radar station, providing range and bearing service on request	
		Ramark, radar beacon transmitting continuously	
		Radar transponder beacon, with morse identification, responding within the 3 cm (X) and 10 cm (S) bands	
		Radar transponder beacon, with sector of obscured reception	
		Radar transponder beacon, with sector of reception	
		Leading radar transponder beacons	
			
		Leading radar transponder beacons coincident with leading lights	
		Floating marks with radar transponder beacons	
		Radar reflector	
		Radar conspicuous feature	

# Radar, Radio and Satellite Navigation Systems

## Radio

Radio structures forming landmarks		→ E	Radio reporting (calling in or way) Points	→ M
+	 Name RC		Circular (non-directional) marine or aeromarine radiobeacon	+
+	 RD 269,5°		Directional radiobeacon with bearing line	+
+	 Lts ≠ 270° RD 270°		Directional radiobeacon coincident with leading lights	
+	 RW		Rotating pattern radiobeacon	
+	 Consol		Consol beacon	
+	 RG		Radio direction-finding station	
+	 R		Coast radio station providing QTG service	
+	 Aero RC		Aeronautical radiobeacon	
+	 AIS		Automatic Identification System transmitter	
+	 AIS		Automatic Identification System transmitter on floating marks (examples)	
+			With no known IALA defined function	
+			Virtual AIS with cardinal mark function	
+			Virtual AIS with lateral mark function	
+			Virtual AIS with isolated danger mark function	
+			Virtual AIS with safe water mark function	
+			Virtual AIS with special purpose mark function	
+			Virtual AIS with new danger mark function	



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		Supplementary national symbols:	a - c	Signal Stations
...	○ SS		Signal station in general	.....
...	○ SS(INT)		Signal station, showing international port traffic signals	.....
...	○ SS(Traffic)		Traffic signal station, port entry and departure signals	.....
...	○ SS(Lock)		Lock signal station	.....
...	○ SS(Bridge)		Bridge passage signal station	.....
...	○ SS(Traffic+)		Traffic signal station including traffic signals	.....
...	○ SS(Weather)		Weather signal station, Wind signal station	.....
...	○ SS (Ice)		Ice signal station	.....
...	○ SS (Time)		Time signal station	.....
.....	⋈		Tide scale or gauge	.....
.....	○		Automatically recording tide gauge	.....
...	○ SS(Tide)		Tidal signal station	.....
...	○ SS(Stream)		Stream signal station	.....
.....				.....
.....				.....



# U

Símbolos Nacionais Complementares		Supplementary National Symbols			
		Waypoint	+		
		Laundrette	+		
		Public toilets	+		
		Fuel Station ( Petrol, Diesel)	+		
		Public telephone	+		
		Electricity	+		
		Car park	+		
		Parking for boats and trailers	+		
		Caravan site	+		
		Camping site	+		
		Water Police	+		
		Water tap	+		

Marina facilities

RE



Marina da Glória  
Marina Angra dos Reis  
Porto Marina Bracuhy

*Marina facilities may be shown in tabular form instead of symbols.*

*Indicates that the facility is available at the marina itself. Laundrettes, etc, located outside the marina are not included.  
The facilities may not be available outside normal workIndicates that the facility is available at the marina itself.*

# Alphabetical Indexes

## Index of Abbreviations

Nota: Abreviaturas Internacionais em negrito

Note: INT abbreviations are bold

		Yellow (lights: colours)				Chimney	
		Sand	J			Chimney(s)	
<b>Aero</b>	<b>Aerofarol</b>	<b>Aeronautical</b>	<b>P 60</b>			Inlet	
<b>Aero Rc</b>	<b>Radiofarol Aeronáutico</b>	<b>Aeronautical radiobeacon</b>	<b>S 16</b>	<b>cm</b>	<b>Centímetro(s)</b>	<b>Centimetre(s)</b>	<b>B 43</b>
		Shoal				Summit	
		Fine sand				Reported, but not confirmed	
		Coarse sand				Coral	<b>K</b>
<b>AIS</b>	<b>Transmissor do Sistema de Identificação Automática</b>	<b>Automatic Identification System Transmitter International</b>	<b>S 17-18</b>			Shells	
<b>AI</b>	<b>Alternada</b>	<b>Alternating</b>	<b>P 10.11</b>			Consol Beacon	
<b>ALC</b>	<b>Boia de Amarração</b>	<b>Articulated Loading Column</b>	<b>L 12</b>			Coral	<b>K</b>
		Association of Lighthouse Authorities				Cross, calvary	
		Leading				Clay	
		Orange				Delta	
		(lights: colours)				hard	
		Alternating				Variation	
		(light: colours)				Magnetic variation destroyed	
		Medium sand		<b>DG</b>	<b>Raia degaussing</b>	<b>Degaussing range</b>	<b>N 25, Q 54</b>
		<b>Amber (lights: colours)</b>		<b>DGPS</b>	<b>Transmissor de correção DGPS</b>	<b>DGPS correction transmitter</b>	<b>S 51</b>
		Cove				Directorate of Hydrographic and Navigation	
<b>Am</b>	<b>Âmbar (luzes: cores)</b>	<b>Amber (lights: colours)</b>		<b>Dia</b>	<b>Diafone</b>	<b>Diaphone</b>	<b>R 11</b>
		Unsurveyed area		<b>Dir</b>	<b>(luz) Direcional</b>	<b>Direction (light)</b>	<b>P 30-31</b>
		Radar mast				distant	
		approximate		<b>dm</b>	<b>decímetro(s)</b>	<b>decimetre(s)</b>	<b>B 42</b>
		Clay		<b>Dn, Dns</b>	<b>Dolfin, mangrullo</b>	<b>Dolphin(s)</b>	<b>F 20</b>
<b>ASL</b>	<b>Rota marítima arquipelágica</b>	<b>Archipelagic Sea Lane</b>	<b>M 17</b>			Dolphin(s)	
<b>ATBA</b>	<b>Área a ser evitada- ASE</b>	<b>Area to be Avoided</b>	<b>M 14</b>	<b>DW</b>	<b>Área de fundeio</b>	<b>Deep water route</b>	<b>M 27</b>
		Avenue		<b>DZ</b>	<b>Zona de perigo</b>	<b>Deep water track</b>	<b>N 12.4</b>
		Blue (lights: colours)				<b>Danger zone</b>	<b>Q 50</b>
				<b>E</b>	<b>Este, Leste</b>	<b>East</b>	<b>B 10</b>
<b>B</b>	<b>Preta</b>	<b>Black</b>	<b>Q 2, Q 81</b>	<b>ED</b>	<b>Existência duvidosa</b>	<b>Existence doubtful</b>	<b>I 1</b>
		White (lights: colours)				Exclusive Economic	
		Bay				Naval college	
		Entrance				Cove	
		Beacon(s)				Entrance	
		Cay				Weed	
<b>bk</b>	<b>Quebrado</b>	<b>Broken</b>	<b>J 33</b>			Signal station	
<b>Bn, Bn(s)</b>	<b>Baliza (s)</b>	<b>Beacon (s)</b>	<b>P 4-5</b>			Traffic separation scheme	
<b>Bo</b>	<b>Pedregulho</b>	<b>Boulder (s) fathom(s)</b>	<b>J 9.2</b>			Estuary	
<b>Br</b>	<b>Arrebentação</b>	<b>Breakers</b>	<b>K 17</b>			Tide scale or gauge	
<b>Bu</b>	<b>Azul</b>	<b>Blue</b>	<b>P 11.4</b>			Building harbour	
		Gravel				Strait, sound	
		Cape		<b>Explos</b>	<b>Explosivo</b>	<b>Explosive</b>	<b>R 10</b>
<b>ca</b>	<b>Calcário</b>	<b>Calcareous</b>	<b>J 38</b>	<b>Exting</b>	<b>Extinta</b>	<b>Extinguished</b>	<b>P 55</b>
<b>CALM</b>	<b>Âncora Catenária</b>	<b>Catenary Anchor</b>	<b>L 16</b>			experimental	
	<b>Perna de Amarração</b>	<b>Leg Mooring</b>				<b>Fixed</b>	<b>P 10.1</b>
<b>Cb</b>	<b>Seixos</b>	<b>Cobbles</b>	<b>J 8</b>	<b>f</b>	<b>Fixa</b>	<b>Fine</b>	<b>J 30</b>
		Channel			<b>Fina</b>		
		Chapel				Farm	
		Castle					
<b>cd</b>	<b>Candela(s)</b>	<b>candela</b>	<b>B 54</b>				
		Chart datum					
		Coast Guard					
		Church					

Index of Abbreviations

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Nota: Abreviaturas Internacionais em negrito

		<i>Fathom(s)</i>		IVQ	Muito rápida interrompida	<b>Interrupted very quick very quick</b>	P 10.6
		<i>Light</i>				<i>Ultra quick</i>	
		<i>ort, blockhouse, castle</i>					
FFI	fixa e luminosa com lampejo	<b>Fixed and flashing</b>	P 10.10	Km	Quilômetros	Kilometres	B40,B25
FI	Lampejo	<b>Flashing</b>	P10.4	Kn	Nós	Knot	B52,N27
Fla	Queimador	<b>Flare stack</b>	L11				
FPSO	Navio Cisterna	<b>Floating Production, Storage &amp; Off-loading vessel</b>	L 17			<i>Mud</i>	
		<i>Front light</i>	P 23			<i>Lagoon</i>	
Front Lt	Luz anterior	<b>Front light</b>	P 23	LANBY	Luz flutuante (barca farol)	<b>Large Automatic Navigation Buoy</b>	P 6
FS	Mastro de bandeira	<b>Flagstaff, Flagpole</b>	E 27	LASH	Navio porta-barcaças	<b>Lighter Aboard Ship</b>	P 0.11
FSO	Estocagem e escoamento flutuante	<b>Floating Storage and Offloading</b>	L 17	Lat	Latitude	<b>Latitude</b>	B 1
FSU	Unidade flutuante de estocagem	<b>Floating Storage Unit</b>	—			<i>Silt</i>	
ft	Pés	<b>Foot/Feet</b>	B 47	Ldg	Alinhamento	<b>Leading</b>	P 20.3
				LFI	Lampejo longo	<b>Long-flashing</b>	P 10.5
		<i>Gulf</i>	—	Lndg	Local de encalhe	<b>Leading for boats</b>	F 17
G	Cascalho	<b>Gravel</b>	J 6	LNG	Gas Natural liquefeito	<b>Liquefied Natural Gas</b>	—
		<i>Coast Guard</i>	T 10 - 11	LPG	Gas Petróleo liquefeito	<b>Liquefied Petroleum Gas</b>	—
		<i>Liquefied petroleum gas</i>	—	Long	Longitude	<b>Longitude</b>	B 2
G	Verde	<b>Green</b>	P 11.2 Q 2			<i>Lower light</i>	
GNSS	Sistema Global de Navegação por Satélite	<b>Global Navigational Satellites System</b>	—			<i>Flashing (light)</i>	
GPS	Sistema Global de Posicionamento por Satélite	<b>Global Positioning System</b>	—	Lt,Lts	Luz Primária e Secundária	<b>Light (s)</b>	P 1
grt	Tonelagem de arqueação bruta	<b>Gross register tonnage</b>	—			<i>lighted</i>	—
GT	Tonelagem de arqueação	<b>Gross tonnage</b>	—			<i>Fog detector light</i>	
						<i>Low water</i>	
H	Helicóptero	<b>Helicopter</b>	T 1.4			<i>Mud</i>	
h	Duro	<b>Hard</b>	J 39	M	Milha Náutica	<b>International nautical mile(s) or sea mile(s)</b>	B 45
h	Hora	<b>Hour</b>	B 49	m	Metro(s)	<b>Metre(s)</b>	B 41,P 13
		<i>Highest Astronomical Tide</i>		m	Média	<b>Medium</b>	
				m	Minuto(s) de Tempo	<b>Minute (s) of time</b>	
Hor	Horizontal	<b>Horizontally disposed</b>	P 15			<i>magnetic</i>	
		<i>High Water</i>				<i>March</i>	Q 71
		<i>High Water Full and Change</i>				<i>Mast</i>	
		<i>Island</i>	—			<i>Mean Higher High Water</i>	
		<i>International Association of Marine Aids to Navigation and Lighthouse Authorities</i>				<i>Mean Higher Low Water</i>	
		<i>Floodlit</i>				<i>Mean High Water</i>	
		<i>International Maritime Organization</i>				<i>Mean High Water</i>	
INT	Internacional	<b>International</b>	A2, T21	min	Minutos de tempo	<b>minute(s) of time</b>	B 50
Iso	Isofásica	<b>Isophase</b>	P 10.3	Mk	Sinal	<b>Mark</b>	Q 101
		<i>lower (light)</i>				<i>soft</i>	
Intens	forte (setor) alta luminosidade	<b>Intensified</b>	P 46			<i>Mean Lower High Water</i>	
IQ	Rápida interrompida	<b>Interrupted quick</b>	P 10.6			<i>Mean Lower Low Water</i>	
		<i>Islet</i>	—			<i>Mean Low Water</i>	

## Alphabetical Indexes

## Index of Abbreviations

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		<i>Mean Low Water Neaps</i>				<i>Quick (light)</i>	
		<i>Mean Low Water Spring</i>		<b>R</b>	<b>Rocha</b>	<b>Rock</b>	<b>J 9, K 15</b>
		<i>Milimetre(s)</i>	<b>B 44</b>	<b>R</b>	<b>Encarnado</b>	<b>Red</b>	<b>P 11.2</b>
<b>mm</b>	<b>Milimetro(s)</b>	<b>Morse Code</b>	<b>P 10.9</b>			<i>Street, road</i>	—
<b>Mo</b>	<b>Código Morse</b>	<i>Hill</i>	—	<b>Racon</b>	<b>Baliza Transponder</b>	<b>Radar Transponder</b>	<b>S 3.1-3.6</b>
		<b>Monument</b>	<b>E 24</b>			<i>Sunken rock</i>	—
<b>Mon</b>	<b>Monumento</b>	<b>Marine Reserve</b>	<b>N 22</b>	<b>Ra</b>	<b>Radar</b>	<b>Radar</b>	<b>M 31, 32</b>
<b>MR</b>	<b>Reserva Marinha</b>	<i>Very Quick (light)</i>	—			<i>Deep water route</i>	<b>S 1</b>
		<i>Interrupted very quick (light)</i>	—			<i>Circular Marine Radiobeacon</i>	<b>S 10</b>
		<i>Mean Sea Level</i>	—	<b>RD</b>	<b>Radiofarol direcional</b>	<b>Directional Radiobeacon</b>	<b>S 11</b>
		<i>Mountain, mount</i>	—			<i>Rear light</i>	—
		<i>Seamount</i>	—	<b>Ref</b>		<b>Refuge</b>	<b>Q 124</b>
		<i>Mean Tide Level</i>	—	<b>Rep</b>		<b>Reported but not confirmed</b>	<b>I 3.1</b>
						<i>Spit</i>	—
<b>N</b>	<b>Norte</b>	<b>North</b>	<b>B 9</b>			<i>Reef, coral reef</i>	—
<b>NE</b>	<b>Nordeste</b>	<b>North-east</b>	<b>B 13</b>	<b>RG</b>	<b>Estação Radiométrica</b>	<b>Radio direction-finding station</b>	<b>S 14</b>
<b>No</b>	<b>Número</b>	<b>Number</b>	<b>N 12.2</b>			<i>stiff</i>	—
		<i>Knot(s)</i>	—			<i>Interrupted quick (light)</i>	—
		<i>Neap tide</i>	—	<b>Ro Ro</b>	<b>Rolh-on, Rolh-off (Terminal Ro-Ro)</b>	<b>Roll-on, Roll off (Ro Ro Terminal)</b>	<b>F 50</b>
		<i>Chart datum</i>	—			<i>Rock</i>	—
<b>NW</b>	<b>Noroeste</b>	<b>North-west</b>	<b>B 15</b>	<b>Ru, ru</b>	<b>Ruína</b>	<b>Ruin, ruined</b>	<b>D 8</b>
							<b>E 25.2</b>
							<b>F 33</b>
<b>Obscd</b>	<b>Obscurecido</b>	<b>Obscured</b>	<b>P 43</b>	<b>RW</b>	<b>Radiofarol rotativo</b>	<b>Rotating-pattern radiobeacon</b>	<b>S 12</b>
		<i>Obstruction</i>	—				—
		<i>Obstruction</i>	—				—
				<b>S</b>	<b>Sul</b>	<b>South</b>	<b>B 11</b>
<b>oc</b>	<b>ocultação</b>	<b>occulting</b>	<b>P 10.2</b>	<b>S</b>	<b>Areia</b>	<b>Sand</b>	<b>J</b>
<b>occas</b>	<b>(luz) ocasional</b>	<b>occasional (light)</b>	<b>P 50</b>			<i>Pebbles</i>	<b>J</b>
<b>ODAS</b>	<b>Sistema de Aquisição de Dados Oceânicos</b>	<b>Ocean Data Acquisition System</b>	<b>L 25, Q 58</b>	<b>s</b>	<b>Segundo(s) de tempo</b>	<b>Second(s) of time</b>	<b>B 51, P 12</b>
		<i>International Hidrographic Organization</i>	—			<i>Saint</i>	—
		<i>Brinck kiln, brick works</i>	—			<i>Range</i>	—
		<i>Orange</i>	—	<b>SALM</b>	<b>Boia de Amarração (Articulada)</b>	<b>Single Anchor leg Mooring (Brazilian sea)</b>	<b>L 12</b>
						<i>Search</i>	—
						<i>And Rescue</i>	—
		<i>Pebbles</i>	—	<b>SBM</b>	<b>Boia de instalação de petróleo e gás</b>	<b>Single Buoy Mooring</b>	<b>L 16</b>
		<i>Stones</i>	—			<i>submerged</i>	—
<b>PA</b>	<b>Posição Aproximada</b>	<b>Position approximate</b>	<b>B 7</b>	<b>SD</b>	<b>Sondagem Duvidosa</b>	<b>Sounding doubtful</b>	<b>I 2</b>
		<i>private (light)</i>	—	<b>SE</b>	<b>Sudeste</b>	<b>South-east</b>	<b>B 14</b>
		<i>Private</i>	—	<b>sec</b>	<b>Segundo(s) de tempo</b>	<b>Second(s) of time</b>	<b>B 51</b>
		<i>Passage</i>	—	<b>sf</b>	<b>Rígido</b>	<b>Stiff</b>	<b>J 36</b>
		<i>Peak</i>	—			<i>Unwatched, unmanned</i>	—
<b>PD</b>	<b>Posição Duvidosa</b>	<b>Position doubtful</b>	<b>B 8</b>			<i>Seagrass</i>	—
		<i>Peninsula</i>	—	<b>sh</b>	<b>Conhas</b>	<b>Shells</b>	<b>J 11</b>
		<i>Pyramid</i>	—	<b>si</b>	<b>Lodo, Vasa</b>	<b>Silt</b>	<b>J 4</b>
		<i>Tableland</i>	—	<b>sig</b>	<b>Sinal (tráfego)</b>	<b>Signal</b>	<b>T 25.2</b>
		<i>rear (light)</i>	—	<b>SMt</b>	<b>Monte Submarino</b>	<b>Seamount</b>	—
<b>Priv</b>	<b>Projetado</b>	<b>Private</b>	<b>P 65</b>	<b>so</b>	<b>Mole</b>	<b>Soft</b>	<b>J 35</b>
			<b>Q 70</b>	<b>Sp</b>	<b>Vértice (igreja)</b>	<b>(Church) spire</b>	<b>E 10.3</b>
<b>PSSA</b>	<b>Área Marítima particularmente Sensível</b>	<b>Particularly Sensitive Sea Area</b>	<b>N 22</b>			<i>Spring tide</i>	—
		<i>Point</i>	—	<b>SPM</b>	<b>Boia de amarração</b>	<b>Single Point Mooring</b>	<b>L 12</b>
<b>PYL</b>	<b>Torre (Tr) de alta tensão</b>	<b>Pylon</b>	<b>D 26.1-2</b>	<b>SS</b>	<b>Estação de Sinais</b>	<b>Signal station</b>	<b>T 20-36</b>
				<b>St</b>	<b>Pedras</b>	<b>Stones</b>	<b>J 5</b>
<b>Q</b>	<b>Rápido</b>	<b>Quick</b>	<b>P 10.6</b>			<i>upper (light)</i>	—
		<i>broken</i>	—	<b>SW</b>	<b>Sudoeste</b>	<b>South-west</b>	<b>B 16</b>



Shelter, Refuge	Sand
- mariners	Clay
- shipwrecked	Fish trap
Reservoir	Transit shed
Customs Office	Archipelado
Aero Light	Breakers
Airport	Stream
Office	Paddy field
-post office	Tree
-telegraph	Embankment
Radar Range	Atoll
Village	Harbour
- inland	Motonway
Customs Office	Avenue
Kelp, Weed	
Leading line	
Height	
	Basin
Shoal	- turning basing
Height	- oilfield
Target	Bay
Cable	Low water
Cove	Shoal
Local magnetic anomaly	Beacon
Mast	Automatic Identification System transmitter on
- radar	Bank
- radio mast, television	Cay
- dish aerial	Public Toilets
Whistle	Borge
Approach	Light float
Bushes	Entrance
Area	Levee
- to be avoided	Barrier
- haven	Hulk
- coastline	Battery
- numerous moorings	Buoy
- supply pipeline	Borderland
- submarine cable	- continental
- dumping ground	- sheif edge
	Woody
- dredging	Arm of sea
- exercise	
- anchorage	Hut
- incineration	Wellhead
- se plane handing	Knoll
- precautionary	Cable
- remains off wreck	- overhead
	- submarine
- cargo transhipment	Sheerlegs
- outhar harbour	Waterfalls
- dredged	Seamount chain
- embankment	Quay
- reclamation	
- military	- water tower
- unsurveyed	- post box
- camping site	Trough
- caravan site	Inlet
- danger	Track
- harbour limit	Grassland
- prohibited	Camp
- restricted	
- rocky	
- urban	
- with stones and gravel	

**Index**  
Portuguese - English

Wind farm	Variation Magnetic
Minefield	Delta
Channel	Recommended track
- ditch with sluice	Public landing
- fairway limits	Gorge
- dredged channel	Deviaton
- swept channel	Diaphone
Pipeline	Diffuser
Canyon	Dock
Chapel	Wet dock
Grassland	Dolphin
Harbour Master's Office	Radar dome
Bushes	Dunes
Building Slip	
Adjoining Chart	Lock
Bunker station	Buildings
House	Electricity
- machine house	Rise
- exchange office	Boat lift
Building Slip	
Wreck	Cove
Castle	Entrance
Casuarina	Weed
Cathedral	Steps
Cemetery	Scarp
Chimney	Navigation school
Plateau	Naval College
Showers	Office
City	Tidal barrier
Sailing club	Trot
Morse Code	High water full and change
Sandhills	Stake
Minor Post	Station
Flood Barrage	- coastguard
Shells	- ferry harbour
Conifer	- trot
Structure	- signal
Spur	- rescue
Convent	- telegraph
Palm	- any kind of
Coral	- coast radar
Rapids	- coast radio
Currents	- radio direction-finding
- flood tide stream	Fishing stakes
- lava flow	Parking
- ebb tide stream	Estadium
- in restricted waters	Building harbour
- ocean	Conveyor
Current meter	Dryng height
Coast	Road
- flat coast	Strait
- cliffy coast	Estuary
- flat coast	Greenhouse
Ridge	Eucalypt
Calugry	Existence doubtful
Summit	
Church Cupola	
Fish Trap	
Lines	
- form lines	
- contour lines	
- isogonic lines	
	Factory

Pharmacy	shellfish beds
Light	-
Lighthouse	- districted or province limit
Farm	maritime limit
Railway	Line
Filao	power transmission
Fiord	low water
Wood	baseline
Pontoon	radio reporting
Spring	danger line
Fort	radar reference
Small fort	separation line
Sea moat	telephone
Moat	pilots transferred
Mouth	landing
Cold store	berths
International boundary	Silt
Anchorage	Saddle
Foul ground	Light
Warehouse	front or lower light
Gap	with ranges
Gas	with sector
Pipeline	leading light
Gas works	landing light
Glacier	Weed
Ice	air obstruction
Gulf	fog detector
Gong	direction
Gridiron, scrubbing grid	light in line
Farm	floating
Training wall	all-round
Crane	private
Helicopter landing site	rear or upper
Helicopter	major
Floodlight	minor
Public house, Inn	Dolphin
Hospital	Mangrove
Hotel	Sea
Yacht club	- territorial
Icebergs	Marabout
Creek	Topmark
Church	Boundary mark
Island	Tidal
Facilities	Tide gauge
Institute	Marina
Depth contours	Flagstaff, flagpole
Isophase	Wood
Lagoon	Boulder
Lakes	Mean
Lagoon	- mean lower low water
Mud	- mean higher low water
Laundrett	- mean lower high water
Trough	- mean higher high water
	International
	Mosque
	Mine
	Windmil
	Mole

**Index**  
Portuguese - English

Mountain	planes of reference
Mount	Platform
- abissal hill	- offshore platforms
	- continental shelf
- seamount	- observation research platform
Monument	- production platform
Hill	
Monastery	Plateau
Seawall	Well
	Police
	Point
Spring	Head, headland
Nautophone	Pantoon
	Bridge
- manker ship	Landmarks
- very large crude carrier	- conspicuous
- lighter aboard ship	- landmarks
- storage tanker	Races
-	Port, harbour
- datum for sounding redustion	Position
- mean tide level	- aproximate
- mean sea level	
	Pole
Works	- bollard
Observatory	Station
Obstruction	- fuel station
Ocean	- pilot office
Eletric works	- health office quarantine building
Brick kiln, brick works	- lookout
Pipeline	- physician, doctor
Sandwaves	Village
Wave recorder	Grassland
Coastal hillock	Grassland
	Sandy
	- sandy shore
	- shingly shore
	- stony shore
	High water
	Building
	Town hall
	Sounding
	Promontory
	Province
	Provision
	Tidal stream table
	Breakwater
	Flare stack
	Radar transponder
	Radar scanner
	Radiobeacon
	Degaussing range
	Slope
	- slipway, patent slip
	Ravine
	Overfalls
	Reef
Notice board	
Tableland	
Abysssal plain	
-	
Land survey datum	

Eddies	.....	Tankes	.....
Benchmark	.....	Aerial cableway	.....
Refinery	.....	Temple	.....
Radar reflector	.....	Terminal	.....
Province	.....	Terrace	.....
Tide scale	.....		
Office	.....		
Dam	.....		
Nature reserve	.....		
Reservoir	.....	- watch	.....
Restaurant	.....	Transmitter	.....
		- DGPS correction	.....
Retroreflecting	.....	- automatic identification system	.....
Creek	.....	Jetty	.....
Creek	.....	Tramway	.....
Creek	.....	Trench	.....
River	.....	Submerged pile	.....
Rock	.....	Tunnel	.....
Roll-on, Roll-off (Ro-Ro Terminal)	.....	Turbine	.....
Compass rose	.....	- wind	.....
Routes	.....	- underwater	.....
Street	.....	Power station	.....
Ruin	.....		
Salt pans	.....	Valley	.....
Shinto shrine	.....	-	.....
Deposits	.....	- horizontal clearance	.....
Pebbles	.....	- vertical clearance	.....
Saddle	.....	Magnetic variation	.....
Range	.....	Vegetation	.....
Works	.....	-	.....
- sea search and rescue	.....	- church	.....
		- triangulation point	.....
- sewage works	.....	Viaduct	.....
Silo	.....	Village	.....
Symbols	.....	Fish haven	.....
- pictorial	.....	Volcanic	.....
- plan	.....	Volcano	.....
- point	.....		
- in profile	.....		
Marks	.....	Zone	.....
- cardinal	.....	- contiguous	.....
- safe water	.....	- fracture	.....
- isolated danger	.....	- separation	.....
- special	.....	- in shore traffic	.....
- floating	.....	- exclusive economic	.....
- lateral	.....	- fishery	.....
Bell	.....		
Siren	.....		
World Geodetic System	.....		
Farm	.....		
Sill	.....		
Sounding	.....		
Continental rise	.....		
Superbuoy	.....		
Ultra large crude carrier	.....		
Continental slope	.....		
Trough	.....		

*Abbreviations*

*Abyssal*

*– hill*

*– plain*

*About*

*Adjoining chart*

*Aerial*

*– cableway*

*– dish*

*Aero light*

*Aeronautical radiobeacon*

*Air obstruction light*

*Air traffic*

*Airfield, airport*

*All-round light*

*Alternating (light)*

*Amber*

*Anchor berth*

*Anchorage*

*– area*

*– for seaplanes*



**Index**  
English - Portuguese

Contour lines	.....	Deep water	.....
- depth	.....	- anchorage (area)	.....
Control point	.....	- harbour	.....
Convent	.....	- route	.....
Conveyor	.....	- track	.....
Cooling water intake/ outfall	.....	Degaussing range	.....
Copyright note	.....	- buoy	.....
Coral reef	.....	Degree(s)	.....
- always covered	.....	Delta	.....
- covers and uncovers	.....	Depth(s)	.....
Coraline algae	.....	- contour	.....
Corner co-ordinate	.....	- contour, approximate	.....
Correction note	.....	- fairways and areas	.....
Course	.....	- minimum	.....
Cove	.....	- swept	.....
Covers	.....	- unknown	.....
Covers and uncovers	.....	Derrick, oil	.....
Crane	.....	Designation	.....
- travelling	.....	- of berth	.....
- container	.....	- of reporting points	.....
Creek	.....	Destroyed	.....
Cross	.....	Detector light	.....
Cross light	.....	Development area	.....
Crossing gates, traffic separation	.....	Deviation	.....
Crossing, traffic separation scheme	.....	Deviation dolphin	.....
Cultural feature	.....	DGPS correction transmitter	.....
Cupola, church	.....	Diaphone	.....
Current	.....	Diffuser	.....
- in restricted waters	.....	Dimension	.....
- meter	.....	Direction	.....
Custom	.....	- finding station	.....
- harbour	.....	- light	.....
- limit	.....	- of buoyage	.....
- office	.....	- of traffic flow	.....
Cut	.....	Directional radiobeacon	.....
Cutting	.....	Discharge pipe	.....
Cylindrical buoy	.....	- area	- área
		Dish aerial	.....
		Diposition of lights	.....
		Distances	.....
		- waterway	.....
		Distant	.....
		Distress signal station	.....
		Disused	.....
		- pipeline/pipe	.....
		- platform	.....
		- submarine cable	.....
		Ditch with sluice	.....
		Diving prohibited	.....
		Dock	.....
		- dry, graving	.....
		- floating, wet	.....
		Dolphin	.....
		Doubtful	.....
		- existence	.....
		Dimension	.....
		- position	.....
		- sounding	.....
		Draw bridge	.....
		Dredged area, channel	.....
		Dredged to	.....
Dam	.....		
Danger	.....		
- area beacon	.....		
- area/ zone	.....		
- firing area	.....		
- isolated mark	.....		
- line	.....		
- reported	.....		
- signal station	.....		
Dangerous wreck	.....		
Data collection buoy	.....		
Datum	.....		
- Chart	.....		
- for sounding reduction	.....		
- height, land survey	.....		
Daytime light	.....		
Deciduous tree	.....		
Decimetre	.....		
Decreasing	.....		

# Alphabetical Indexes

## Index English - Portuguese

Dredging	.....	Firing danger area	.....
- area	.....	(danger zone) buoy	.....
Dries	.....	Firing practice area	.....
Dry dock	.....	Fish	.....
Drying	.....	- aggregating device(s)	.....
- contour	.....	(Fad)	.....
- height	.....	- haven	.....
Dumping ground	.....	- trap	.....
Duna	.....	- trap area	.....
Dyke	.....	- weir	.....
		Fishery limit	.....
		Fishing	.....
East	.....	- area	.....
Ebb tide stream	.....	- dangerous	.....
Eddies	.....	- harbour	.....
Edition number	.....	- prohibited	.....
Electric works	.....	- restricted	.....
Electricity	.....	- stakes	.....
Elevation of light	.....	- village	.....
Embankment	.....	Fixed (light)	.....
Entrance	.....	- & flashing	.....
Entry prohibited area	.....	- beacon	.....
Environmentally Sensitive	.....	- bridge	.....
Sea Area (ESSA)	.....		
Escarpment	.....	Fjord	.....
Established (mandatory)	.....	Flagpole, flagstaff	.....
direction of traffic flow	.....	Flare stack	.....
Estuary	.....		
Eucalypt	.....	Flashing light	.....
Evergreen	.....	Flat coast	.....
		Floating	.....
Zone (EEZ)	.....	- barrier	.....
Exercise area, submarine	.....	- dock	.....
		- light	.....
Existence doubtful	.....	- oil barrier	.....
Experimental	.....	Flood barrage	.....
Explanatory note	.....	Flood tide stream	.....
Explosive(s)	.....	Floodlight of a structure	.....
- anchorage area	.....		
- dumping ground	.....	Floodlit	.....
- fog signal	.....	Fog	.....
Extinguished (light),	.....	- detector light	.....
Extraction area	.....	- light	.....
		- signal	.....
Factory	.....	- signal description	.....
Faint sector	.....	Foot, feet	.....
Fairway	.....	Foot-bridge	.....
Fairway, lights marking	.....		
Fan	.....	Form line	.....
Farm	.....	Fort	.....
- marine	.....	Fortfield structure	.....
Fast ice, limit	.....	Fracture zone	.....
Fathom	.....	Free port	.....
Ferry	.....	Front light	.....
- harbour	.....	Fuel station	.....
- light	.....		
- terminal, RoRo	.....		
Filao	.....	Gap	.....
Fine	.....		
Firing danger area	.....	Gas	.....
beacon	.....	- pipeline	.....
		- pipeline area	.....
		- works	.....
		Gasfield name	.....
		Gate	.....
		Geographical position	.....

**Index**  
English - Portuguese

Glacier	.....	Hillock	.....
Gong	.....	Hole	.....
Gorge	.....	Horizontal	.....
Grain harbour	.....	- clearance	.....
Grassland	.....	- light	.....
Gravel	.....	Horizontally disposed	.....
Graving dock	.....	Horn	.....
Green	.....	Hospital	.....
Greenhouse	.....	Hotel	.....
Greenwich Meridian	.....	Hour	.....
Gridiron	.....	House	.....
Ground	.....	Hulk	.....
Ground tackle	.....	Hut	.....
Group	.....		
- quick	.....		
- very quick	.....	IALA Maritime Buoyage	.....
- flashing	.....	System	.....
- occulting	.....	Ice boom	.....
Groyne	.....	Ice front, limit	.....
Gulf	.....	Ice signal station	.....
Gully, tidal	.....		
Harbour	.....	Icebergs limit	.....
- building	.....	Illuminated	.....
- coal	.....	Imprint	.....
- container	.....	Important building in	.....
- depth	.....	built-up area	.....
- ferry	.....	In line	.....
- grain	.....	Inadequately surveyed	.....
- industrial	.....		
- inner	.....	- area	.....
- installation	.....	Incineration area	.....
- limit	.....	Increasing	.....
- master's office	.....	Industrial harbour	.....
- oil	.....	Inland village	.....
- ore	.....	Inlet	.....
- outer	.....	Inner harbour	.....
- timber	.....	Inshore Traffic Zone (ITZ)	.....
- type	.....	Installation	.....
Hard	.....	- buoy	.....
Haven	.....	- harbour	.....
Head, headland	.....	- offshore	.....
Headway	.....	Institute	.....
Health office	.....	Intake	.....
		- area	.....
Height	.....	Intensified sector	.....
- contour, approximate	.....	Intermittent river	.....
		International	.....
- datum	.....	- boundary	.....
		- chart number	.....
- of structure above	.....		
ground level	.....	- maritime boundary	.....
- of top a structure	.....	- meridian	.....
Helicopter landing site	.....	- nautical mile	.....
Helicopter, pilot board	.....	Interrupted	.....
place	.....	- light	.....
		- ultra quick	.....
High Water (HW)	.....	- very quick	.....
Highest Astronomical	.....	Interdidal area	.....
Tide (HAT)	.....	Island	.....
High speed craft	.....	- artificial	.....
		Islet	.....
		Isogonal	.....
		Isolated danger mark	.....
		Isophased (light)	.....

# Alphabetical Indexes

## Index English - Portuguese

	- major floating	.....
	- marking fairway	.....
Jetty		.....
Joss house		.....
	- Moiré effect	.....
	- off chart limits	.....
	- period	.....
	- range	.....
	- sector	.....
	- special	.....
	- structure	.....
	- times of exhibition	.....
Kelp		.....
Kilometre		.....
Knoll		.....
Knot		.....
	Light-float	.....
	Light-float, minor	.....
		.....
Lagoon		.....
Lake		.....
Land survey datum		.....
	Light-vessel	.....
Landing		.....
- beacon (cable)		.....
- for boats		.....
	Lighted	.....
- light		.....
- site (helicopter)		.....
- stairs, steps		.....
Landmark		.....
Lane, submarine transit		.....
	- beacon	.....
	- beacon tower	.....
	- mark	.....
	- mooring buoy	.....
	- offshore platform	.....
Large automatic		.....
Navigational Buoy (LANDY)		.....
Lateral mark		.....
( IALA System)		.....
Latitude		.....
Lattice		.....
- beacon		.....
- tower		.....
Lava flow		.....
Leading		.....
- beacon		.....
- light		.....
- lights with leading line		.....
- line		.....
Least depth in narrow		.....
channel		.....
Ledge		.....
Leisure facilities		.....
	Lighter Aboard Ship (LASH)	.....
	Lighthouse	.....
	Limit	.....
	- entry prohibited area	.....
	- contiguous zone	.....
	- continental shelf	.....
	- danger line	.....
	- development area	.....
	- dredged area	.....
	- Exclusive Economic	.....
	Zone (EEZ)	.....
	- fast ice	.....
	- fishery zone	.....
	- icebergs	.....
	- military practice area	.....
		.....
	- nature reserve	.....
	- prohibited area	.....
		.....
	- restricted area	.....
	- routing measure	.....
		.....
	- safety zone	.....
	- sea ice (pack ice) seasonal	.....
	- seaward	.....
	- territorial sea	.....
	- unsurveyed area	.....
	Linear scale	.....
	Liquefied Natural Gas	.....
	Liquefied Petroleum Gas	.....
	Local magnetic anomaly	.....
	Loch, sea	.....
	Lock	.....
	- signal station	.....
	Log pond	.....
	Long-flashing (light)	.....
	Longitude	.....
	Lookout	.....
	- pilot	.....
	- station	.....
	Lough	.....
	Low Water (LW)	.....
	Low water line	.....
	Lower light	.....
	Lowest Astronomical	.....
	Tide (LAT)	.....
Lesser		.....
Lesser water		.....
Levee		.....
Lifeboat		.....
- mooring		.....
- station		.....
Lifting bridge		.....
Light(s)		.....
- character		.....
- colour		.....
- description		.....
- direction		.....
- disposition		.....
- elevation		.....
- exhibited only when		.....
specially needed		.....
- in line		.....
- landing		.....
- landmarks		.....
- leading		.....

**Index**  
English - Portuguese

Machine house	.....	- international nautical	.....
Magnetic	.....	- sea	.....
- anomaly	.....	Military practice area	.....
- compass	.....	- Military restricted area	.....
- variation	.....	Mill	.....
Maintained depth	.....	Millimetre	.....
Major floating light	.....	Minaret	.....
Major light	.....	Mine	.....
Mandatory direction of	.....	Minefield	.....
traffic flow	.....	Mine-laying practice area	.....
Mangrove	.....	Minimum depth	.....
Manifold	.....	Minor	.....
Marabout	.....	- channel	.....
Marginal notes	.....	- impermanent marks	.....
Marina	.....	- light	.....
- facilities	.....	- light floats	.....
Marine farm	.....	- post, pile	.....
Marine reserve	.....	Minute	.....
Maritime limit in general	.....	- arc	.....
Mark	.....	- time	.....
- cardinal	.....	Mixed bottom	.....
- coloured	.....	Mixed semidiurnal tides	.....
- isolated danger	.....	Moat	.....
- lateral	.....	Moiré effect light	.....
- lighted	.....	Mole	.....
- minor	.....	Monastery	.....
- safe water	.....	Monument	.....
- special	.....	Moored storage tanker	.....
- white	.....	Mooring	.....
Marked	.....	- berth number	.....
Marker ship	.....	- ground tackle	.....
Marsh	.....	- lifeboat	.....
Mast	.....	- numerous	.....
- mooring	.....	- trot	.....
- radar	.....	- visitors' berth	.....
- radio, television	.....	Mooring buoy	.....
- wreck	.....	- lighted	.....
Maximum draught on	.....	- telegraphic	.....
track	.....	- telephonic	.....
Maximum speed	.....	Morse code light	.....
Mean	.....	Mosque	.....
- High Water	.....	Motorway	.....
- High Water Neaps	.....	Mount, Mountain	.....
- High Water Springs	.....	Mouth	.....
- Higher High Water	.....	Mud	.....
- Higher Low Water	.....	Multi-storey building	.....
- Low Water	.....	Multibeam (sounding)	.....
- Low Water Neaps	.....	Mussel beds	.....
- Low Water Springs	.....		
- Lower High Water	.....	Name of oilfield or gasfield	.....
- Lower low Water	.....	Named anchorage area	.....
- Sea level	.....	Narrow	.....
- tide level	.....	National limit	.....
Measured distance	.....	National park	.....
Median valley	.....	Natural features	.....
Medium	.....	Natural inland features	.....
Metre	.....		
Mile	.....		

## Alphabetical Indexes

Natural watercourse	- field name
Nature of the seabed	- pipeline
Nature reserve	- pipeline area
Nautical mile, internacional	- retention barrier
Nautophone	Oily wastes, reception facilities
Naval	One-way track
- college	Opening bridge
- port	Orange
Navigation school	Ore harbour
Neap tide	Outer harbour
Net, tunny	Outfall
Nipa palm	- area
No anchoring area	- buoy
No bottom found	- cooling water
Non-dangerous rock	Overfalls
Non-dangerous wreck	Overhead
Non-directional radiobeacon	- cable
Non-specific nature reserve	- pipe
Non-tidal basin	- power cable
North	- transporter
North-east	Oyster beds
North-west	Pack ice
Notes, marginal	Paddy field
Notice board	Pagoda
Notices to Mariners	Painted board
Number, anchorage, berth	Palm
Numbered anchorage area	Partial sea floor coverage
Numerous moorings	Particularly Sensitive Sea Area (PSSA)
Nun buoy	Partly
Obelisk	Passage
Obscured sector	Patent slip
Observation platform	Path
Observation spot	Peak
Observatory	Pebbles
Obstruction	Peninsula
Obstruction light, air	Perch
Occasional (light)	Period of light
Occulting (light)	Pictorial symbol
Ocean	Pier
Ocean current	- promenade
Ocean (ographic) Data Acquisition System	- ruined
Office	Pile, piling
- customs	- row of
- Harbour Master's	- submerged
- Health	Pillar
- pilot	- buoy
Offshore	Pilot
- installations	- boarding place
- platform, lighted	- cruising vessel position
- Ogival buoy	- helicopter transfer
Oil	- lookout
- barrier	- office
- harbour	Pilotage
	Pinnacle

**Index**  
English - Portuguese

Pipe(line)		Pump house	
- area		Pylon	
- on land		Pyramid	
- submarine			
Plateau		QTD service	
Platform		Qualifying term, seabed	
		Quarantine	
Point		- anchorage	
- fixed		- building	
- radio reporting		Quarry	
- symbol		Quay	
Pole		Quick light	
Police			
- water		Race	
Pontoon		Racon	
- bridge		Radar	
Port(s)		- beacon	
- type		- conspicuous	
- control signal station		- dome	
		- mast	
- with pilotage service		- range	
		- reference line	
Position(s)		- reflector	
- approximate		- scanner	
- buoy or beacon		- station, coast	
- doubtful		- surveillance system	
- fog signal		- tower	
- geographical		- transponder beacon	
- note of magnetic variation		Radio (station)	
- pilot crusing vessel		- direction-finding station	
		- mast	
- tidal stream data		- reporting line	
		- reporting point	
- tide data		- station, QTG service	
Post		- tower	
- office		Radiobeacon	
- submerged		Radome	
Power		Rail traffic	
- cable		Railway	
- station		- station	
- transmission line		Ramark	
Practice area (military)		Ramp	
		Range	
Precautionary area		Rapids	
Preferred channel buoy		Ravine	
Private buoy		Rear light	
Private light		Reception facilities,	
Production platform		oil wastes	
Prohibited		Reclamation area	
- anchoring		Recommended	
- area		- direction of traffic flow	
- diving		- fairway	
- fishing		- route	
Projected		- track	
Promenad pier		Recreation zone buoy	
Prominent tree		Red	
Promontory		Reed	
Protection structure		Reef	
Province		Reference	
Public building		Reference ellipsoid	
Publication note		Refinery	
		Reflector, radar	

# Alphabetical Indexes

## Index English - Portuguese

Refrigerated storage house	Saltings, salt marsh
Refuge	Sand
Refuge beacon	Sandhill, sand dune
	Sandwaves
Refuge for shipwrecked mariners	Sandy shore
Regatta area	Satellite navigation system
Relief	Scanner, radar
Reported	Scarp
- anchorage	Scrubbing grid
- but not confirmed	Sea
- depht	- channel
Reporting, radio, point	- ice limit
	- loch
Rescue	- mile
Rescue station	- moat
Research platform	Seabed, type of
Reserved anchorage area	Seal
Reservoir	Seal sanctuary
Resilient beacon	Seamount
Restricted	Seaplane
- area	- anchorage
- light sector	- anchorage buoy
Retroreflecting material	- operating area
Ridge	
Rise	Seasonal buoy
River	Seasonal sea ice limit
Road	Seawall
- name	Second
- traffic	- arc
- pilot crusing vessel	- time
	Sector
Road, roadstead	- arc
Rock	- faint
- awash	- intensified
Rocket station	- light
	- obscured
Rocky	- restricted
- area	Separation line
Roll-on, Roll-off (RoRo) terminal	Separation zone
Rotating-pattern radiobeacon	Services
Roundabout	Settlement
Route	Settlement with scattered buildings
Routeing measure	Sewage works
Row of piles	Sewer
Ruin	- area
Ruined landmark	Shape of buoy
	Shed, transit
Ruined pier	Sheerlegs
Runway	Shelf
	- edge
	Shellfish beds
	Shells
Sadle	Shingly shore
Safe clearence	Shinto shrine
- depth	Ship lift
- vertical	Shipyards
Safe water mark	Shoal
Safety fairway	Shoaled
Safety zone	Shore, shoreline
	Sidearm
Sailing club	Signal stations
Sailor's home	Sill
Saint	Silo
Salt pans	Silt

Single Buoy Mooring (SBM) .

Single-flashing  
Siren

Sirene

Slope  
Sluice  
Small craft facilities

Sound  
Sounding  
- doubtful  
- in true position  
- out of position  
- unreliable

South-east

# Alphabetical Indexes

## Index English - Portuguese

Telegraph	.....	- watch	.....
- line	.....	- water	.....
- station	.....	Town	.....
- office	.....	Town hall	.....
Telegraphic, mooring buoy	.....	Track	.....
Telephone	.....	Trade port	-
- line	.....	Traffic (road, rail, air)	-
Telephonic, mooring buoy	.....	- buoy	.....
Television	.....	- flow, direction	.....
- mast	.....	- signal	.....
- tower	.....	- surveillance station	.....
Temple	.....	Traffic Separation	.....
Temporary	.....	Scheme (TSS)	.....
- buoy	.....	Training wall	.....
- light	.....	Tramway	.....
Terminal	.....	Transshipment	.....
Terms relating to tidal levels	.....	- area	.....
Terrace	.....	- facilities	.....
Territorial sea limit	.....	Transit	.....
Territorial sea, straight	.....	- lane	.....
baseline	.....	- shed	.....
Tidal	.....	Transponder beacon	.....
- barrier	.....	Transporter	.....
- basin	.....	Transporter bridge	.....
- harbour	.....	Trap, fish	.....
- level	.....	Travelling crane	.....
- signal	.....	Tree(s)	.....
- station, offshore	.....	- height to top	.....
- table	.....	Trench	.....
Tidal stream	.....	Triangular disposed/	.....
- diagram	.....	Triangulation point	.....
- ebb, flood	.....	Trot, mooring	.....
- station	.....	Trough	.....
- signal station	.....	True (compass)	.....
- table	.....	Tun buoy	.....
Tide(s)	.....	Tunnel	.....
- astronomical	.....	- pipeline	.....
- gauge, automatically	.....	Tunny net	.....
recording	.....	- area	.....
- rips	.....	Turbine	.....
- scale	.....	Turning	.....
- signal station	.....	- area	.....
- table	.....	- basing	.....
Tideway	.....	- circle	.....
Timber	.....	Two-way-route	.....
- harbour	.....	Tyfon	.....
- yard	.....	Types of fog signals	.....
Time signal station	.....	Types of seabed	.....
Ton, tonnage,	.....	Types of seabed, intertidal	.....
tonne (weight)	.....	areas	.....
Topmark	.....	Ultra Large Crude Carrier	.....
Topographic term	.....	(ULLC)	.....
Tower	.....	Ultra quick light	.....
- beacon	.....		
- church	.....		
- lattice	.....		
- radar	.....		
- radar, television	.....		

**Index**  
English - Portuguese

Uncovers	Waypoint
Under construction	Weather signal station
Under reclamation	Weed
Underwater	Weir
- installation	Weir, fish
- rock	Well
- turbine	- production
Unintensified sector	- suspended
Unit	Wellhead
Unknown, depth	West
Unmanned light	Wet dock
Unsurveyed	Wharf
- area	Whistle
- coastline	White
- wreck	- mark
- unreliable	Wind
Unwatched light	- farm
Upper light	- signal station
Urban area	- turbine
Valley	Windmill
Variable arrow light	Windmotor
Variation	Withy
Vegetation	Wood
Vertical	Woodland
- clearance	Works
- colours stripes	- at sea
- light	- brick
Vertical disposed	- cement
Very Large Crude	- electric
Carrier (VLCC)	- gas
Very quick light	- in progress
Viaduct	- on land
Views	- sewage
Village	- water
Violet	World Geodetic System
Visitors` berth	(WGS)
Volcanic	Wreck(s)
Wall, training	Yacht
Warehouse	- berth
Watch tower	- club
Water	- harbour
- features	Yard
- mill	- building
- pipe, pipeline	- buoy
- pipeline area	- timber
- police	Yellow
- tank	Zone
- tower	- contiguous
- works	- economic
Watercourse, natural	- Exclusive Economic (EEZ)
Waterfall	- fracture
Wave farm	- Inshore Traffic (ITZ)
Wave recorder	- safety
Wave-actuated fog signal	- separation

# INTRODUCTION AND SCHEMATIC LAYOUT

## Selection of Symbols

### GENERAL

Chart Number, Title, Marginal Notes



Positions, Distances, Directions and Compass



### TOPOGRAPHY

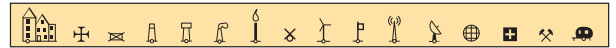
Natural Features



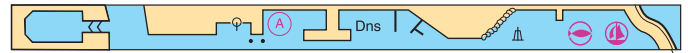
Cultural Features



Landmarks

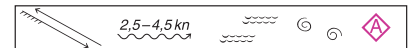


Ports

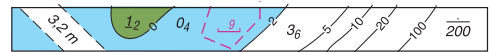


### HYDROGRAPHY

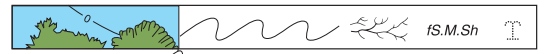
Tides, Currents



Depths



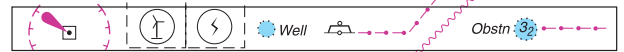
Nature of the Seabed



Rocks, Wrecks, Obstructions



Offshore Installations



Tracks, Routes



Areas, Limits



Lights



### NAVEGATION AIDS AND SERVICES

Buoys, Beacons



Fog Signals



Radar, Radio and Satellite Navigation Systems



Services



Small Craft (Leisure) Facilities



Index of Abbreviations (National and International)

General Index - Translation of Terms