



Appendix A. Chart No. 1

Chart No. 1

United States of America

Nautical Chart Symbols and Abbreviations

Eighth Edition
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Prepared jointly by

DEPARTMENT OF COMMERCE
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INTRODUCTION

General Remarks—This publication (Chart No. 1) contains symbols and abbreviations that have been approved for use on nautical charts published by the United States of America. A Glossary of Terms used on the charts of various nations is also included. The user should refer to DMAHTC Pub. No. 9, **American Practical Navigator** (Bowditch), Volume I, for the use of the chart in the practice of navigation and more detailed information pertaining to the chart sounding datum, tides and currents, visual and audible aids to navigation, etc.

Numbering—Terms, symbols, and abbreviations are numbered in accordance with a standard format approved by a 1952 resolution of the International Hydrographic Organization (IHO). Although the use of IHO-approved symbols and abbreviations is not mandatory, the United States has adopted many IHO-approved symbols for standard use. Style differences of the alphanumeric identifiers in the first column of the following pages show the status of symbols and abbreviations.

VERTICAL FIGURES indicate those items for which the symbols and abbreviations are in accordance with resolutions of IHO.

SLANTING FIGURES indicate those symbols for which no IHO resolution has been adopted.

SLANTING FIGURES ASTERISKED indicate IHO and U.S. symbols do not agree.

SLANTING LETTERS IN PARENTHESIS indicate that the items are in addition to those appearing in the IHO STANDARD LIST OF SYMBOLS AND ABBREVIATIONS.

Metric Charts and Feet/Fathom Charts—In January 1972 the United States began producing certain new nautical charts in meters. Since then many charts have been issued with soundings and contours in meters; however, for some time to come there will still be many charts on issue depicting sounding units in feet or fathoms. Modified reproductions of foreign charts are being produced retaining the native sounding unit value. The sounding unit is stated in bold type outside the border of every chart and in the chart title.

Chart Modernization—Chart symbols and labeling are brought into reasonable agreement with uniform international charting standards and procedures as quickly as opportunity affords. An example of this is the trend toward using vertical type for labeling items referred to the shoreline plane of reference, and slant type for all items referred to the sounding datum. This is not completely illustrated in this publication but is reflected in new charts produced by this country in accordance with international practices.

Soundings—The sounding datum reference is stated in the chart title. In all cases the unit of depth used is shown in the chart title and in the border of the chart in bold type.

Drying Heights—On rocks and banks that cover and uncover the elevations are above the sounding datum as stated in the chart title.

Shoreline—Shoreline shown on charts represents the line of contact between the land and a selected water elevation. In areas affected by tidal fluctuation, this line of contact

is usually the mean high-water line. In confined coastal waters of diminished tidal influence, a mean water level line may be used. The shoreline of interior waters (rivers, lakes) is usually a line representing a specified elevation above a selected datum. Shoreline is symbolized by a heavy line (A9).

Apparent Shoreline is used on charts to show the outer edge of marine vegetation where that limit would reasonably appear as the shoreline to the mariner or where it prevents the shoreline from being clearly defined. Apparent shoreline is symbolized by a light line (A7, C17).

Landmarks—A conspicuous feature on a building may be shown by a landmark symbol with a descriptive label. (See I 8b, 36, 44, 72.) Prominent buildings that are of assistance to the mariner may be shown by actual shape as viewed from above (See I 3a, 19, 47, 66). Legends associated with landmarks when shown in capital letters, indicate conspicuous or the landmarks may be labeled "CONSPIC" or "CONSPICUOUS."

Buoys—The buoyage systems used by other countries often vary from that used by the United States. U.S. Charts show the colors, lights and other characteristics in use for the area of the individual chart. Certain U.S. distributed modified reproduction charts of foreign waters may show shapes and other distinctive features that vary from those illustrated in this chart.

In the U.S. system, on entering a channel from seaward, buoys on the starboard side are red with even numbers, on the port side, black or green with odd numbers. Lights on buoys on the starboard side of the channel are red or white, on the port side, white or green. Mid-channel buoys have red and white or black and white vertical stripes and may be passed on either side. Junction or obstruction buoys have red and green or red and black horizontal bands, the top band color indicating the preferred side of passage. This system does not apply to foreign waters.

IALA Buoyage System—The International Association of Lighthouse Authorities (IALA) Maritime Buoyage System (combined Cardinal-Lateral System) is being implemented by nearly every maritime buoyage jurisdiction worldwide as either REGION A buoyage (red to port) or REGION B buoyage (red to starboard). The terms "REGION A" and "REGION B" will be used to determine which type of buoyage is in effect or undergoing conversion in a particular area. The major difference in the two buoyage regions will be in the lateral marks. In REGION A they will be red to port; in REGION B they will be red to starboard. Shapes of lateral marks will be the same in both REGIONS, can to port; cone (nun) to starboard. Cardinal and other marks will continue to follow current guidelines and may be found in both REGIONS. A modified lateral mark, indicating the preferred channel where a channel divides, will be introduced for use in both REGIONS. Section L and the color plates at the back of this publication illustrate the IALA buoyage system for both REGIONS A and B.

Aids to Navigation Positioning—The aids to navigation depicted on charts comprise a system consisting of fixed and floating aids with varying degrees of reliability. Therefore, prudent mariners will not rely solely on any single aid to navigation, particularly a floating aid.

The buoy symbol is used to indicate the approximate position of the buoy body and the sinker which secures the buoy to the seabed. The approximate position is used because of practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations. These limitations include, but are not limited to, inherent imprecisions in position fixing methods, prevailing atmospheric and sea conditions, the

slope of and the material making up the seabed, the fact that buoys are moored to sinkers by varying lengths of chain, and the fact that buoy body and/or沉器 positions are not under continuous surveillance but are normally checked only during periodic maintenance visits which often occur more than a year apart. The position of the buoy body can be expected to shift inside and outside the charting symbol due to the forces of nature. The mariner is also cautioned that buoys are liable to be carried away, shifted, capsized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice, running ice, other natural causes, collisions, or other accidents.

For the foregoing reasons a prudent mariner must not rely completely upon the position or operation of floating aids to navigation, but will also utilize bearings from fixed objects and aids to navigation on shore. Further, a vessel attempting to pass close aboard always risks collision with a yawing buoy or with the obstruction the buoy marks.

Colors—Colors are optional for characterizing various features and areas on the charts. For instance the land tint in this publication is gold as used on charts of the National Ocean Service; however, charts of the DMA show land tint as gray.

Heights—Heights of lights, landmarks, structures, etc. are referred to the shoreline plane of reference. Heights of small islets or offshore rocks, which due to space limitations must be placed in the water area, are bracketed. The unit of height used is shown in the chart title.

Conversion Scales—Depth conversion scales are provided on all charts to enable the user to work in meters, fathoms, or feet.

Improved Channels—Improved channels are shown by dashed limit lines with the depth and date of the latest examination placed adjacent to the channel or in a channel tabulation.

Longitudes—Longitudes are referred to the meridian of Greenwich.

Traffic Separation Schemes—Traffic separation schemes show established routes to increase safety of navigation, particularly in areas of high density shipping. These schemes were established by the International Maritime Organization (IMO) and are described in the IMO publication "Ships Routing".

Traffic separation schemes are generally shown on nautical charts at scales of 1:600,000, and larger. When possible, traffic separation schemes are plotted to scale and shown as depicted in Section P.

Names—Names on nautical charts compiled and published by the United States of America are in accordance with the principles of the Board of Geographic Names.

Correction Dates—The dates of New Editions are shown below the lower left border of the chart. These include the date of the latest Notice to Mariners applied to the charts.

U.S. Coast Pilots, Sailing Directions, Light Lists, Lists of Lights—These related publications furnish information required by the navigator that cannot be shown conveniently on the nautical charts.

U.S. Nautical Chart Catalogs and Indexes—These list nautical charts, auxiliary maps, and related publications and include general information relative to the use and ordering of charts.

Special and Foreign Symbols—Some differences may be observed between the symbols shown in Chart No. 1 and symbols shown on certain special charts and reproductions of foreign charts. A glossary of foreign terms and abbreviations is generally shown on charts on which they are used, as well as in the Sailing Directions. In addition, an extensive glossary is found at the back of this publication.

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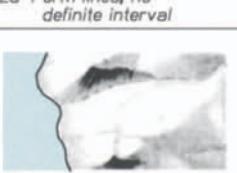
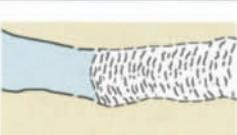
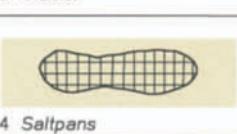
A The Coastline

	 • 7 Mangroves; Apparent shoreline and mangrove vegetation limit	 • 11d Rock (uncovers at sounding datum)
 • 2 Steep coast	 8 Surveyed coastline	 • 11e Sand and mud
 2a Flat coast	 9 Shoreline	 • 11f Sand and gravel
 3 Cliffy coast	 10 Chart sounding datum line	 • 11g Coral (uncovers at sounding datum)
 3a Rocky coast	 (Aa) Approximate sounding datum line	 12 Breakers along a shore
 4 Sandhills; Dunes	 11 Foreshore; Strand (in general)	 14 Limit of unsurveyed areas
 5 Stony or shingly shore	 • 11a Mud	 (Ab) Rubble
 6 Sandy shore	 • 11b Sand	 • 11c Stones; Shingle; Gravel

B Coast Features

1	G	Gulf
2	B	Bay
(Ba)	B	Bayou
3	Fd	Fjord
4	L	Loch; Lough; Lake
5	Cr	Creek
5a	C	Cove
6	In	Inlet
7	Str	Strait
8	Sd	Sound
9	{ Pass	Passage; Pass
	Thoro	Thoroughfare
10	Chan	Channel
10a		Narrows
11	Entr	Entrance
12	Est	Estuary
12a		Delta
13	Mth	Mouth
14	Rd	Road; Roadstead
15	Anch	Anchorage
16	Hbr	Harbor
16a	Hn	Haven
17	P	Port
(Bb)	P	Pond
18	I	Island
19	It	Islet
20	Arch	Archipelago
21	Pen	Peninsula
22	C	Cape
23	Prom	Promontory
24	Hd	Head; Headland
25	Pt	Point
26	Mt	Mountain; Mount
27	Rge	Range
27a		Valley
28		Summit
29	Pk	Peak
30	Vol	Volcano
31		Hill
32	Bld	Boulder
33	{ Ldg	Landing
	Lndg	Landing
34		Tableland
		Plateau
35	R, Rk, Rks	Rock, Rocks
36		Isolated rock
(Bc)	Str	Stream
(Bd)	R	River
(Be)	Slu	Slough
(Bf)	Lag	Lagoon
(Bg)	Apprs	Approaches
(Bh)	Rky	Rocky
(Bi)	Is	Islands
(Bj)	Ma	Marsh
(Bk)	Mg	Mangrove
(Bl)	Sw	Swamp

C The Land

	1 Contour lines (Contours)	5d Nipa palm	14 Intermittent stream
	1a Contour lines, approximate (Contours)	5e Filao	15 Lake; Pond
	2 Hachures	5f Casuarina	16 Lagoon (Lag)
	2a Form lines, no definite interval	6 Cultivated	Marsh
	2b Shading	6a Grass fields	(used in small areas)
	3 Glacier	7 Rice	17 Swamp
	4 Saltpans	7a Paddy (rice) fields	18 Slough (Slu.)
	5 Isolated trees	8a Park; Garden	19 Rapids
	5a Deciduous; of unknown or unspecified type	8 Bushes	20 Waterfalls
	5b Coniferous	9a Woods in general	21 Spring
	5c Palm tree	10a Woods in general	
		11 Tree top elevation (above shoreline datum)	
		12 Lava flow	
		13 River; Stream	

D Control Points

1	▲	Triangulation point (station)	4	⊕ Obs Spot	Observation spot
1a		Astronomic station	5	⊖ o BM	Bench mark
2	◎	Fixed point (landmark, position accurate)	6	View X	View point
(Da)	○	Fixed point (landmark, position approximate)	7		Datum point for grid of a plan
3	256	Summit of height (Peak) (when not a landmark)	8		Graphical triangulation point
(Db)	◎ 256	Peak, accentuated by contours	9	Astro	Astronomical
(Dc)	★ 256	Peak, accentuated by hachures	10	Tri	Triangulation
(Dd)	★	Peak, elevation not determined	(Df)	C of E	Corps of Engineers
(De)	◎ 256	Peak, when a landmark	12		Great trigonometrical survey station
			13		Traverse station
			14	Bdy Mon	Boundary monument
			(Dg)	◇	International boundary monument

E Units

1	hr, h	Hour	11	M, Mi NMi, NM	Nautical mile(s)	21	'	Minute (of arc)
2	m, min	Minute (of time)	12	kn	Knot(s)	22	"	Second (of arc)
3	sec, s	Second (of time)	12a	t	Tonne (metric ton equals 2,204.6 lbs)	23	No	Number
4	m	Meter	12b	cd	Candela (new candle)	(Ea)	{ St M, St Mi	Statute mile
4a	dm	Decimeter	13	lat	Latitude	(Eb)	μsec, μs	Microsecond
4b	cm	Centimeter	14	long	Longitude	(Ec)	Hz	Hertz (cps)
4c	mm	Millimeter	14a		Greenwich	(Ed)	kHz	Kilohertz (kc)
4d	m ²	Square meter	15	pub	Publication	(Ee)	MHz	Megahertz (Mc)
4e	m ³	Cubic meter	16	Ed	Edition	(Ef)	cps, c/s	Cycles/second (Hz)
5	km	Kilometer(s)	17	corr	Correction	(Eg)	kc	Kilocycle (kHz)
6	in, ins	Inch(es)	18	alt	Altitude	(Eh)	Mc	Megacycle (MHz)
7	ft	Foot, feet	*19	ht; elev	Height; Elevation	(Ei)	T	Ton (U.S. short ton equals 2,000 lbs)
8	yd, yds	Yard(s)	20	°	Degree			
9	fm, fms	Fathom(s)						
10	cbl	Cable length						

F Adjectives, Adverbs, Nouns, and Other Words

1	gt	Great	25	discontd	Discontinued	(Fe)	cor	Corner
2	lit	Little	26	prohib	Prohibited	(Ff)	concr	Concrete
3	Lrg	Large	27	explos	Explosive	(Fg)	fl	Flood
4	sml	Small	28	estab	Established	(Fh)	mod	Moderate
5		Outer	29	elec	Electric	(Fi)	bet	Between
6		Inner	30	priv	Private, Privately	(Fj)	1st	First
7	mid	Middle	31	prom	Prominent	(Fk)	2nd, 2d	Second
8		Old	32	std	Standard	(Fl)	3rd, 3d	Third
9	anc	Ancient	33	subm	Submerged	(Fm)	4th	Fourth
10		New	34	approx	Approximate	(Fn)	DW	Deep Water
11	St	Saint	35		Maritime	(Fo)	min	Minimum
12	CONSPIC	Conspicuous	36	maintd	Maintained	(Fp)	max	Maximum
13		Remarkable	37	aband	Abandoned	(Fq)	N'ly	Northerly
14	D, Destr	Destroyed	38	temp	Temporary	(Fr)	S'ly	Southerly
15		Projected	39	occas	Occasional	(Fs)	E'ly	Easterly
16	dist	Distant	40	extr	Extreme	(Ft)	W'ly	Westerly
17	abt	About	41		Navigable	(Fu)	Sk	Stroke
18		See chart	42	N M	Notice to Mariners	(Fv)	Restr	Restricted
18a		See plan	(Fa)	L N M	Local Notice to Mariners	(Fw)	Bl	Blast
19		Lighted, Luminous				(Fx)	CFR	Code of Federal Regulations
20	sub	Submarine	43		Sailing Directions	(Fy)	COLREGS	Int'l Regulations for Preventing Collisions at Sea, 1972
21		Eventual	44		List of Lights			
22	AERO	Aeronautical	(Fb)	unverd	Unverified	(Fz)	IWW	Intracoastal Waterway
23		Higher	(Fc)	AUTH	Authorized			
23a		Lower	(Fd)	CL	Clearance			
24	exper	Experimental						

G Ports and Harbors

1		Anch	Anchorage (large vessels)	14		Fsh stks	Fisheries; Fishing stakes
2		Anch	Anchorage (small vessels)	14a		Fish trap; Fish weirs (actual shape charted)	
3	Hbr	Harbor		14b			Duck blind
4	Hn	Haven		15			Tunny nets
5	P	Port		15a		Oys	Oyster bed
6		Bkw	Breakwater	16	Ldg,Lndg		Landing place
6a		Dike		17			Watering place
7		Mole		18		Whf	Wharf
8		Jetty (partly below MHW)		19			Quay
8a		Submerged jetty		20	(A) (14)	(A) (14)	Berth
(Ga)		Jetty (small scale)		*20a		(14) (A) (14) (B)	Anchoring berth
9		Pier		20b	3		Berth number
10		Spit		21		Dol	Dolphin
11		Groin (partly below MHW)		22			Bollard
*12		ANCH PROHIB		22a		SPM	Fixed single point mooring structure (lighted)
12			Anchorage prohibited (Screen optional)	23			Mooring ring
12a			Anchorage reserved	24			Crane
12b		QUAR ANCH	Quarantine anchorage	25			Landing stage
*12c			Quarantine Anchorage	25a			Landing stairs
*12d			Quarantine Anchorage	26		Quar	Quarantine
*12e		FISH PROHIB	Fishing prohibited	27			Lazaret
13			Spoil ground (Dump Site)	28		Harbor Master	
(Gb)			Dumping ground (depths may be less than indicated) (Dump Site)	28		Hbr Mr	Harbormaster's office
(Gc)			Disposal area (Dump Site)	29		Cus Ho	Customhouse
(Gd)		(P)	Pump-out facilities	30			Fishing harbor
				31			Winter harbor
				32			Refuge harbor
				33		B Hbr	Boat harbor
				34			Stranding harbor (uncovers at LW)
				35			Dock
				36			Drydock (actual shape on large scale charts)
				37			Floating dock (actual shape on large scale charts)
				38			Gridiron; Careening grid

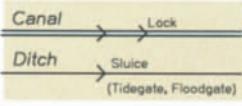
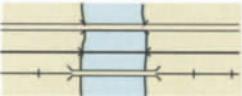
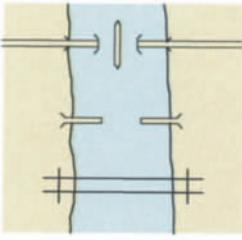
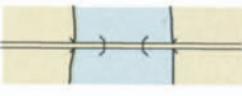
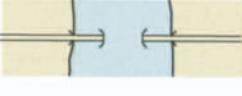
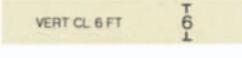
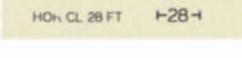
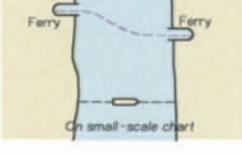
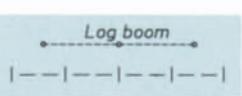
G Ports and Harbors

39		Patent slip; Slipway; Marine railway	46a		Calling-in point for vessel traffic control
39a		Ramp	47		Anchorage for seaplanes
40		Lock (point upstream)	48		Seaplane landing area
41		Wetdock	* 49		Work in progress
42		Shipyard	* 50		Under construction
43		Lumber yard	51		Work projected
44		Health Office	(Ge)		Submerged ruins
45		Hulk (actual shape on large scale charts)	(Gf)		Dump site
45a					
* 46		Prohibited area (screen optional)			

H Topography

1		Road (Rd) or Highway (Hy)	3e		Cutting
(Ha)		Highway markers	3f		Causeway
2		Track, Footpath or Trail	4		Overhead power cable (OVHD PWR CAB)
3		Railway (Ry) (single or double track) Railroad (RR)	5		Power transmission line
(Hb)		Abandoned railroad	5a		Power transmission mast
3a		Tramway	6		Prominent telegraph or telephone line
3b		Railway station	7		Aqueduct; Water pipe
3c		Tunnel (railroad or road)	8		Viaduct
3d		Embankment, Levee	8a		Pipeline
			9		Pile; Piling; Post
			9a		Pile, Piling, Post
			10		Highway (See H 1)

H Topography

11		Sewer	
12		Culvert	
13		Canal, Ditch, Lock, Sluice (Tidegate, Floodgate)	
14		Bridge in general (BR)	
(Hc)		Bridge under construction	
14a		Stone, concrete bridge (same as H 14)	
14b		Wooden bridge (same as H 14)	
14c		Iron bridge (same as H 14)	
14d		Suspension bridge (same as H 14)	
15		Drawbridge (in general)	
16		Swing bridge (same as H 15)	
16a		Lift bridge	
16b		Weighbridge or Bascule bridge	
17		Pontoon bridge	
17a		Footbridge	
18		Transporter bridge (same as H 14)	
18a		Bridge clearance, vertical	
18b		Bridge clearance, horizontal	
19		Ferry (Fy) <small>On small-scale chart</small>	
(Hd)		Cable ferry	
20		Ford	
21		Dam	
22		Fence	
23		Training wall	
24		Log boom	

I Buildings and Structures

1		City or Town (large scale)	(lc)		Airport,military (small scale)
(la)		City or Town (small scale)	(ld)		Airport,civil (small scale)
1a	(30)	Height of a structure	25		Mooring mast
2		Suburb	26		Street
3	VII	Village	26a		Avenue
3a		Buildings in general	26b		Boulevard
4		Castle	27		Telegraph
5		House	28		Telegraph office
6		Villa	29		Post office
7		Farm	30		Government house
8		Church	31		Town hall
8a		Cath.	32		Hospital
8b		Spire; Steeple	33		Slaughter house
9		Roman Catholic Church	34		Magazine
10		Temple	34a		Warehouse; Storehouse
11		Chapel	35		Monument
12		Mosque	36		Cupola
12a		Minaret	37		Elevator
(lb)		Moslem Shrine	(le)		Elevation; Elevated'
13		Marabout	38		Shed
14		Pagoda	39		Zinc roof
15		Buddhist Temple; Joss-House	40		Ruins
15a		Shinto Shrine	41		Tower
16		Monastery; Convent	(lf)		Abandoned lighthouse
17		Calvary; Cross	42		Windmill
17a		Cemetery, Non-Christian	43		Watermill
18		Cemetery, Christian	43a		Windmotor
18a		Tomb	44		Chimney; Stack
19		Fort (actual shape charted)	* 45		Water tower; Standpipe
20		Battery	46		Oil tank; Gas tank; Gasholder; Gasometer
21		Barracks	47		Factory
22		Powder magazine	48		Saw mill
* 23		Airplane landing field	49		Brick kiln
* 24		Airport,large scale	50		Mine; Quarry
			51		Well
			52		Cistern
			53		Tank
			54		Noria
			55		Fountain
			61		Institute
			62		Establishment
			63		Bathing establishment
			64		Courthouse

I Buildings and Structures

65		Sch	School	74		Pyramid
(lg)		HS	High school	75		Pillar
(lh)		Univ	University	76		Oil derrick
66		Bldg	Building	(li)	Ltd	Limited
67		Pav.	Pavilion	(lj)	Apt	Apartment
68		Hut	Hut	(lk)	Cap	Capitol
69		Stadium	Stadium	(lm)	Co	Company
70	T	Telephone	Telephone	(ln)	Corp	Corporation
71		Gas tank; Gasometer	Gas tank; Gasometer	(lo)		Landmark (position accurate)
72		GAB	Gable	(lp)		Flare; Stack (on land)
73			Wall			

J Miscellaneous Stations

1		Sta	Any kind of station	15		Ice signal station
2		Sta	Station	16		Time signal station
3		CG	Coast Guard station (similar to Lifesaving station, J 6)	16a		Manned oceanographic station
(Ja)		R TR C G WALLIS SANDS	Coast Guard station (when landmark)	16b		Unmanned oceanographic station
4		LOOK TR	Lookout station; Watch tower	17		Time ball
5			Lifeboat station	18		Signal mast
6		LS S	Lifesaving station	18a		Mast
7		Rkt Sta	Rocket station	19		Flagstaff; Flagpole
8		PIL STA	Pilot station/Pilots	19a		Flag tower
9		Sig Sta	Signal station	20		Signal
10		Sem	Semaphore	21		Observatory
11		S Sig Sta	Storm signal station	22		Office
12			Weather signal station	(Jc)		Bell (on land)
(Jb)		NWS SIG STA	National Weather Service signal station	(Jd)		Harbor entrance control post
13			Tide signal station	(Je)		Marine police station
14			Stream signal station	(Jf)		Fireboat station
				(Jg)		Notice board

K Lights

1		Position of light				
*2	Lt	Light	25a	S Fl	Short Flashing	
(Ka)		Riprap surrounding light	(Kc)	VQ; V Qk Fl	Continuous Very Quick Flashing (80 to 159-usually either 100 or 120 per minute)	
3	Lt Ho	Lighthouse		VQ (3)	Group Very Quick	
4	*AERO	Aeronautical light		IVQ	Interrupted Very Quick	
4a		Marine and air navigation light		UQ	Continuous Ultra Quick (160 or more-usually 240 to 300 flashes per minute)	
*5	*Bn	Light beacon		IUQ	Interrupted Ultra Quick	
6		Light vessel; Lightship	26	Alt; Alt	Alternating	
8		Lantern	27	Oc (2); Gp Occ	Group-Occulting	
9		Street lamp		Oc(2+3)		
10	REF	Reflector		Fl (2); Gp Fl	Composite group occulting	
11		Leading light	28	S-L Fl	Group Flashing	
11a		Lighted range	28a		Short-Long Flashing	
12		Sector light	28b		Group-Short Flashing	
13		Directional light	29	F Fl	Fixed and Flashing	
			30	F Gp Fl	Fixed and Group Flashing	
14		Harbor light	30a	Mo (A)	Morse Code light (with flashes grouped as in letter A)	
15		Fishing light	31	Rot	Revolving or Rotating light	
16		Tidal light	41		Period	
17		Private light (maintained by private interests; to be used with caution)	42		Every	
21		Fixed (steady light)	43		With	
22		Occulting (total duration of light more than dark)	44		Visible (range)	
23		Single-Flashing (total duration of light less than dark)	(Kd)	M; Mi; N Mi	Nautical mile	
(Kb)		Long-Flashing (2 sec or longer)	(Ke)	m; min	Minutes	
		Composite group-flashing	(Kf)	s; sec	Seconds	
23a		Isophase (light and dark equal)	45	Fl	Flash	
24		Continuous Quick Flashing (50 to 79 per minute; 60 in US)	46	Oc; Occ	Occultation	
		Group Quick	46a		Eclipse	
25		Interrupted Quick Flashing	47	Gp	Group	
			48	Oc; Occ	Intermittent light	
			49	SEC	Sector	
			50		Color of sector	
			51	Aux	Auxiliary light	
			52		Varied	
			61	Vi	Violet	
			62		Purple	
			63	Bu; Bl	Blue	
			64	G	Green	

K Lights

65	Or; Y	Orange	72	Prov	Provisional light	80	Vert	Vertical lights
66	R	Red	73	Temp	Temporary light	81	Hor	Horizontal lights
67	W	White	(Kg)	D; Destr	Destroyed	(Kh)	VB	Vertical beam
67a	Y; Am	Amber	74	Exting	Extinguished light	(Ki)	RGE	Range
(Ko)	Y	Yellow	75		Faint light	(Kj)	Exper	Experimental light
68	OBSC	Obscured light	76		Upper light			
68a	Fog Det Lt	Fog detector light	77		Lower light	(Kp)	□	Lighted offshore platform
70	Occas	Occasional light	78		Rear light			
71	Irreg	Irregular light	79		Front light	(Kq)	⌚	Flare (Flame)

L Buoys and Beacons

* 1	○	Approximate position of buoy	* 21	∅ Tel	Telegraph-cable buoy
* 2	∅	Light buoy	* 22	— — —	Mooring buoy (colors of mooring buoys never carried)
* 3	∅ BELL	Bell buoy	22a		Mooring
* 3a	∅ GONG	Gong buoy	* 22b	— Tel	Mooring buoy with telegraphic communications
* 4	∅ WHIS	Whistle buoy	* 22c	— T	Mooring buoy with telephonic communications
* 5	∅ C	Can or Cylindrical buoy	* 23	∅	Warping buoy
* 6	∅ N	Nun or Conical buoy	* 24	∅ Y	Quarantine buoy
* 7	∅ SP	Spherical buoy	24a		Practice area buoy
* 8	∅ S	Spar buoy	* 25	∅ Explos Anch	Explosive anchorage buoy
* 8a	∅ P	Pillar or Spindle buoy	* 25a	∅ AERO	Aeronautical anchorage buoy
* 9	∅	Buoy with topmark (ball)	* 26	∅ Deviation	Compass adjustment buoy
* 10	∅	Barrel or Ton buoy	* 27	∅ BW	Fish trap (area) buoy (BWHB)
(La)	∅	Color unknown	* 27a	∅	Spoil ground buoy
(Lb)	∅ FLOAT	Float	* 28	∅ W	Anchorage buoy (marks limits)
* 12	∅ FLOAT	∅ FLOAT	* 29	∅ Priv maintd	Private aid to navigation (buoy) (maintained by private interests, use with caution)
13		Outer or Landfall buoy	30		Temporary buoy
* 14	∅ RW	∅ BW	30a		Winter buoy
* 14a	∅ RW	∅ BW	* 31	∅ HB	Horizontal bands
* 15	∅ R	∅ 2*	* 32	∅ VS	Vertical stripes
* 16	∅ = 1*	∅ = 1*	* 33	∅ Chec	Checkered
* 17	∅ RB	∅ BR	* 33a	∅ Diag	Diagonal bands
* 18	∅ RB	∅ BR	41	W	White
* 19	∅ RB	∅ BR	42	B	Black
* 20	∅ RB	∅ BR	43	R	Red
* 20a	∅ RB	∅ BR	44	Y	Yellow
		∅ RG	45	G	Green
		∅ GR	46	Br	Brown
		∅ G	47	Gy	Gray
		∅ G			

L Buoys and Beacons

48	Bu	Blue		* 59	Piles	Piles
48a	Am	Amber			Stumps	Stumps
48b	Or	Orange				Stakes, perches
* 51		Floating beacon (and variations)		(Lc)	MARKER	Marker Private aid to navigation
* 52	Fixed beacons (unlighted or daybeacons)			61	CAIRN	Cairn
	▲ R Bn	△ RG Bn	Triangular beacon			
	▲ Bn		Black beacon	62	○	Painted patches
	■ G Bn	□ GR Bn	□ W Bn	63	○	Landmark (position accurate)
	Square and other shaped beacons			(Ld)	○	Landmark (position approximate)
	□ Bn	+	Color unknown	64	REF	Reflector
	○ + + + +		Variations	65	MARKER	Range targets, markers
53	▲ Bn	□	▲	(Le)	SW Or	Special-purpose buoys
54	T	+			SW Or	
55				66		Oil installation buoy
56	△ Deviation Bn		Compass adjustment beacon	67	□	Drilling platform
57	□ + : o x	▲ ▲ ▼ ▼	Topmarks	70	NOTE: Refer to IALA Buoyage System description on page 48 for aids used in certain foreign waters.	
58			Telegraph-cable (landing) beacon	71	LANBY	LANBY (Large Auto. Nav. Buoy); Superbuoy
				72	T	TANKER terminal buoy (mooring)
				73	ODAS	ODAS (Oceanographic Data Aquisition System)
				(Lg)	Art	Articulated light (floating light)

M Radio and Radar Stations

1	°R Sta	Radio telegraph station	9a	TV TR	Tr	Television mast; Television tower
2	°RT	Radio telephone station	10	TR	(WBAL) 1090 kHz	Radio broadcasting station (commercial)
3	R Bn, Ro Bn	Radiobeacon	* 10a	°R Sta		QTG radio station
4	R Bn, RC	Circular radiobeacon	11	Ra		Radar station
5	RD	Directional radiobeacon; Radio range	12	Racon	°Ra Sur	Radar responder beacon
6	RW	Rotating loop radiobeacon	13	Ra Ref		Radar reflector
7	RDF, Ro DF, RG	Radio direction finding station	14	Ra (conspic)		Radar conspicuous object
(Ma)	ANTENNA (TELEM)	Telemetry antenna	14a	°Ra		Ramark
	TELEM ANT		15	DFS	°R Telem	Distance finding station (synchronized signals)
(Mb)	R RELAY MAST	Radio relay mast	16	AERO R Bn	302	Aeronautical radiobeacon
(Mc)	MICRO TR	Microwave tower			R C Aero	
9	R MAST	Radio mast	17	°Decca Sta		Decca station
	R TR	Radio tower	18	°Loran Sta	Venice	Loran station (name)

M Radio and Radar Stations

(19)		CONSOL Bn 190 kHz MMF	Consol (Consolan) station	(Mf)		LORAN TR SPRING ISLAND	Loran tower (name)
(Md)		AERO R Rge 342 HLL	Aeronautical radio range	(Mg)		R TR	Obstruction light
(Me)		Ra Ref Calibration Bn	Radar calibration beacon	(Mh)		RA DOME	Radar dome
						DOME (RADAR)	
						Ra Dome	
						Dome (Radar)	
				(Mi)		uhf	Ultrahigh frequency
				(Mj)		vhf	Very high frequency

N Fog Signals

1	Fog Sig	Fog-signal station	13	HORN	Air (foghorn)
2		Radio fog-signal station	13a	HORN	Electric (foghorn)
3	GUN	Explosive fog signal	14	BELL	Fog bell
4		Submarine fog signal	15	WHIS	Fog whistle
5	SUB-BELL	Submarine fog bell (action of waves)	16	HORN	Reed horn
6	SUB-BELL	Submarine fog bell (mechanical)	17	GONG	Fog gong
7	SUB-OSC	Submarine oscillator	18		Submarine sound signal not connected to the shore
8	NAUTO	Nautophone	18a		Submarine sound signal connected to the shore
9	DIA	Diaphone			
10	GUN	Fog gun	(Na)	HORN	Typhon
11	SIREN	Fog siren	(Nb)	Fog Det Lt	Fog detector light
12	HORN	Fog trumpet	(Nc)	Mo	Morse Code fog signal

O Dangers

1		Rock which does not cover (height above MHW)	6a		Sunken danger with depth cleared (swept) by wire drag
2	*Uncov 2 ft	Rock which covers and uncovers with height above chart sounding datum (see introduction)	7	Reef	Reef of unknown extent
	*(2)		8		Submarine volcano
	4	Dries 4 ft	9		Discolored water
3	#	Rock awash at (near) level of chart sounding datum	10		Coral reef, detached (uncovers at sounding datum)
		Dotted line emphasizes danger to navigation			
(Oa)	*	Rock awash (height unknown)			
		Dotted line emphasizes danger to navigation			
4	+	Submerged rock (depth unknown)			
		Dotted line emphasizes danger to navigation			
5	5 Rk	Shoal sounding on isolated rock or rocks	11		Wreck showing any portion of hull or superstructure (above sounding datum)
	5 Rks		12		Wreck with only masts (and other protruding objects) visible above sounding datum
6	+ 35 R.	Submerged rock not dangerous to surface navigation			
	+ (35)				

O Dangers

13	Old symbols for wrecks	
13a	PA	Wreck always partially submerged
14		Sunken wreck dangerous to surface navigation (less than 11 fathoms over wreck)
14a		Sunken wreck covered 20 to 30 meters
15	Wk (9)	Wreck over which depth is known
15a	Wk (9) Wk	Wreck with depth cleared by wire drag
15b	Wk	Unsurveyed wreck over which the exact depth is unknown, but is considered to have a safe clearance to the depth shown
16	+++	Sunken wreck, not dangerous to surface navigation
17	#	Foul ground, Foul bottom
17a		Mobil bottom (sand waves)
18	Tide rips	Overfalls or Tide rips
		Symbol used only in small areas
19	Eddies	Eddies
		Symbol used only in small areas
20	Kelp	Kelp, Seaweed
21	Bk	Bank
22	Shl	Shoal
23	Rf	Reef
23a		Ridge
24	Le	Ledge
25	Br or	Breakers
26		Submerged rock
27	Obstr	Obstruction
(Ob)	Obstr *Well	Submerged well
	Obstr Well	Submerged well (buoyed)
(Oc)	Obstruction (fish haven)	Fish haven (artificial fishing reef) (actual shape)
28		Wreck
29	Wks	Wreckage
29a		Wreck remains (dangerous only for anchoring)
* 30	Subm piles	Submerged piling
	Subm piles Stakes, Perches	
* 30a	Snags Stumps	Snags; Submerged stumps
31		Lesser depth possible
32	Uncov	Dries
33	Cov	Covers
34	Uncov	Uncovers
35	Rep (1983)	Reported (with date)
	Eagle Rk (rep 1983)	Reported (with name and date)
36	Discol	Discolored
37		Isolated danger
38		Limiting danger line
39		Limit of rocky area
41	PA	Position approximate
42	PD	Position doubtful
43	ED	Existance doubtful
44	P Pos	Position
45	D	Doubtful
46	Unexam	Unexamined
(Od)	LD	Least Depth
(Oe)	Subm Crib Crib (above water)	Crib
(Of)	Platform (lighted) HORN	Offshore platform (unnamed)
(Og)	Hazel (lighted) HORN	Offshore platform (named)

P Various Limits, etc.

1		Leading line; Range line	11		Limit of dumping ground, spoil ground
2		Transit	12		Anchorage limit
3		In line with			
4		Limit of sector	* 13		Limit of airport
5		Channel,Course,Track recommended (marked by buoys or beacons)	* 14		Limit of sovereignty (Territorial waters)
5a		Recommended track for deep draft vessels (defined by fixed marks)	* 15		Customs boundary
5b		Depth is shown where it has been obtained by the cognizant authority	* 16		International boundary (also State boundary)
(Pa)		Alternate course	17		Stream limit
6		Radar-guided track	18		Ice limit
6a		Established traffic separation scheme. One-way traffic lanes (separated by line or zone)	19		Limit of tide
6b		Established traffic separation scheme: Roundabout	20		Limit of Navigation
		If no separation zone exists, the center of the roundabout is shown by a circle	21		Recommended track (not marked by buoys or beacons)
6c		Recommended direction of traffic flow	21a		Recommended track for deep draft vessels (track not defined by fixed marks)
7		Submarine cable (power telegraph, telephone, etc.)	21b		Depth is shown where it has been obtained by the cognizant authority
7a		Cable Area	22		District or province limit
7b		Abandoned submarine cable (includes disused cable)	23		Reservation line (Options)
8		Submarine pipeline	24		Measured distance
8a		Pipeline Area	25		Prohibited area (Screen optional)
8b		Abandoned submarine pipeline	(Pd)		Shipping safety fairway (two-way traffic)
9		Maritime limit in general	(Pe)		Limits of former mine danger area
(Pb)		Limit of restricted area	(Pf)		Reference larger scale chart
* 10		Limits of national fishing zones	(Pg)		Limit of fishing areas (fish trap areas)
(Pc)		U.S. Harbor Line	(Ph)		3-mile Territorial Sea Boundary 12-mile Contiguous Zone Boundary; headland to headland line
			(Pi)		COLREGS demarcation line

Q Soundings

1	SD	Doubtful sounding	10		Hairline depth figures
2	65	No bottom found	10a	19	Figures for ordinary soundings
3	(23)	Out of position	8 ₂	7 ₁	
4	(5)	Least depth in narrow channels	11		Soundings taken from foreign charts
5	30 FEET APR 1984	Dredged channel (with controlling depth indicated)	12	8 ₂	19 Soundings taken from older surveys (or smaller scale charts)
6	124 FEET OCT 1983	Dredged area	13	8 ₂	19 Echo soundings
7	6 ₁	Swept channel	14	8 ₂	19 Sloping figures
8	2 ₁	Drying (or uncovering) heights above chart sounding datum	15	8 ₂	19 Upright figures
9	89 17 119 15	Swept area, not adequately sounded (shown by purple or green tint)	16	(25) (2)	Bracketed figures
9a	29 23 3 30 19 8 21 18 7	Swept area adequately sounded (swept by wire drag to depth indicated)	17	6	Underlined sounding figures (drying)
			18	3 ₂ 6 ₁	Soundings expressed in fathoms and feet
			22		Unsounded area
			(Qa)	2 ft	Stream

R Depth Contours and Tints

Feet	Fm/Meters		Feet	Fm/Meters	
0	0		300	50	
6	1		600	100	
12	2		1,200	200	
18	3		1,800	300	
24	4		2,400	400	
30	5		3,000	500	
36	6		6,000	1,000	
60	10				Approximate depth contour
120	20				Continuous lines, with values
180	30				
240	40				

(blue or black) — 5 — 100

S Quality of the Bottom

1	Grd	Ground	11	Rk; rky	Rock; Rocky	(Sb)	Vol Ash	Volcanic ash
2	S	Sand	11a	Blds	Boulders	17	La	Lava
3	M	Mud; Muddy	12	Ck	Chalk	18	Pm	Pumice
4	Oz	Ooze	12a	Co	Calcareous	19	T	Tufa
5	MI	Marl	13	Qz	Quartz	20	Sc	Scoriae
6	Cy; Cl	Clay	13a	Sch	Schist	21	Cn	Cinders
7	G	Gravel	14	Co	Coral	21a		Ash
8	Sn	Shingle	(Sa)	Co Hd	Coral head	22	Mn	Manganese
9	P	Pebbles	15	Mds	Madrepores	23	Sh	Shells
10	St	Stones	16	Vol	Volcanic	24	Oys	Oysters

S Quality of the Bottom

25	<i>Ms</i>	<i>Mussels</i>	42	<i>h; hrd</i>	<i>Hard</i>	60	<i>gn</i>	<i>Green</i>
26	<i>Spg</i>	<i>Sponge</i>	43	<i>stf</i>	<i>Stiff</i>	61	<i>yl</i>	<i>Yellow</i>
27	<i>K</i>	<i>Kelp</i>	44	<i>sml</i>	<i>Small</i>	62	<i>or</i>	<i>Orange</i>
28	<i>Wd</i>	<i>Seaweed</i>	45	<i>lrg</i>	<i>Large</i>	63	<i>rd</i>	<i>Red</i>
	<i>Grs</i>	<i>Grass</i>	46	<i>sy; stk</i>	<i>Sticky</i>	64	<i>br</i>	<i>Brown</i>
29	<i>Sig</i>	<i>Sea-tangle</i>	47	<i>bk; brk</i>	<i>Broken</i>	65	<i>ch</i>	<i>Chocolate</i>
31	<i>Sp</i>	<i>Spicules</i>	47a	<i>grd</i>	<i>Ground (Shells)</i>	66	<i>gy</i>	<i>Gray</i>
32	<i>Fr</i>	<i>Foraminifera</i>	48	<i>rt</i>	<i>Rotten</i>	67	<i>lt</i>	<i>Light</i>
33	<i>Gl</i>	<i>Globigerina</i>	49	<i>str</i>	<i>Streaky</i>	68	<i>dk</i>	<i>Dark</i>
34	<i>Di</i>	<i>Diatoms</i>	50	<i>spk</i>	<i>Speckled</i>	70	<i>vard</i>	<i>Varied</i>
35	<i>Rd</i>	<i>Radiolaria</i>	51	<i>gty</i>	<i>Gritty</i>	71	<i>unev</i>	<i>Uneven</i>
36	<i>Pt</i>	<i>Pteropods</i>	52	<i>dec</i>	<i>Decayed</i>	(Sc)	<i>S/M</i>	<i>Surface layer and Under layer</i>
37	<i>Po</i>	<i>Polyzoa</i>	53	<i>fly</i>	<i>Flinty</i>	76		<i>Freshwater springs in seabed</i>
38	<i>Cir</i>	<i>Cirripedia</i>	54	<i>glac</i>	<i>Glacial</i>	(Sd)		<i>Mobile bottom (sand waves)</i>
38a	<i>Fu</i>	<i>Fucus</i>	55	<i>ten</i>	<i>Tenacious</i>	(Se)	<i>Si</i>	<i>Silt</i>
38b	<i>Mo</i>	<i>Mattes</i>	56	<i>wh</i>	<i>White</i>	(Sf)	<i>Cb</i>	<i>Cobbles</i>
39	<i>f; fne</i>	<i>Fine</i>	57	<i>bl; bk</i>	<i>Black</i>	(Sg)	<i>m</i>	<i>Medium (used only before S (sand))</i>
40	<i>c; crs</i>	<i>Coarse</i>	58	<i>vi</i>	<i>Violet</i>			
41	<i>so; stt</i>	<i>Soft</i>	59	<i>bu</i>	<i>Blue</i>			

Foreign Bottoms See glossary

T Tides and Currents

1	<i>HW</i>	<i>High water</i>	10	<i>ISLW</i>	<i>Indian spring low water</i>
1a	<i>HHW</i>	<i>Higher high water</i>	11	<i>HWF&C</i>	<i>High-water full and change (vulgar establishment of the port)</i>
2	<i>LW</i>	<i>Low water</i>	12	<i>LWF&C</i>	<i>Low-water full and change</i>
(Ta)	<i>LWD</i>	<i>Low-water datum</i>	13		<i>Mean establishment of the port</i>
2a	<i>LLW</i>	<i>Lower low water</i>	13a		<i>Establishment of the port</i>
3	<i>MTL</i>	<i>Mean tide level</i>	14		<i>Unit of height</i>
4	<i>MSL</i>	<i>Mean sea level</i>	15		<i>Equinoctial</i>
4a		<i>Elevation of mean sea level above chart (sounding) datum</i>	16		<i>Quarter; Quadrature</i>
5		<i>Chart datum (datum for sounding reduction)</i>	17	<i>Str</i>	<i>Stream</i>
6	<i>Sp</i>	<i>Spring tide</i>	18		<i>Current, general, with rate</i>
7	<i>Np</i>	<i>Neap tide</i>	19		<i>Flood stream (current) with rate</i>
7a	<i>MHW</i>	<i>Mean high water</i>	20		<i>Ebb stream (current) with rate</i>
8	<i>MHWS</i>	<i>Mean high-water springs</i>	21		<i>Tide gauge; Tidepole; Automatic tide gauge</i>
8a	<i>MHWN</i>	<i>Mean high-water neaps</i>	23	<i>vel</i>	<i>Velocity; Rate</i>
8b	<i>MHHW</i>	<i>Mean higher high water</i>	24	<i>kn</i>	<i>Knots</i>
8c	<i>MLW</i>	<i>Mean low water</i>	25	<i>ht</i>	<i>Height</i>
9	<i>MLWS</i>	<i>Mean low-water springs</i>	26		<i>Tide</i>
9a	<i>MLWN</i>	<i>Mean low-water neaps</i>			
9b	<i>MLLW</i>	<i>Mean lower low water</i>			

T Tides and Currents

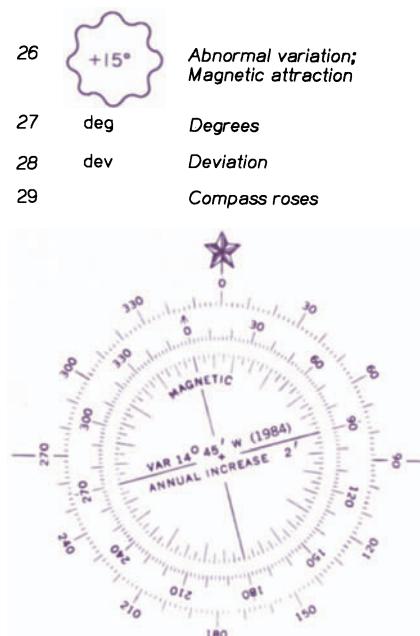
27		New moon
28		Full moon
29		Ordinary
30		Syzygy
31	fl	Flood
32		Ebb
33		<i>Tidal stream diagram</i>

34		Place for which tabulated tidal stream data are given
35		Range (of tide)
36		Phase lag
(Tb)		Current diagram, with explanatory note
(Tc)	CRD	Columbia River Datum
(Td)	GCLWD	Gulf Coast Low Water Datum

U Compass

1	N	North
2	E	East
3	S	South
4	W	West
5	NE	Northeast
6	SE	Southeast
7	SW	Southwest
8	NW	Northwest
9	N	Northern
10	E	Eastern
11	S	Southern
12	W	Western

21	brg; My	Bearing
22	T	True
23	mag	Magnetic
24	var	Variation
25		Annual change
25a		Annual change nil



The outer circle is in degrees with zero at true north. The inner circles are in points and degrees with the arrow indicating magnetic north.

V Abbreviations of principal foreign terms, (Glossary)

ALBANIAN CHARTING TERMS

K, koder, kodra	hill
ARABIC CHARTING TERMS	
Dj, djebel	mountain, hill
G, geb, gebel	mountain, hill
J, job, jabal, jabel	mountain, hill
Jazirat, jazt	island, peninsula
Jeb, jebel	mountain, hill
Jez, jezirat	island, peninsula
Jl	mountain, hill
K, khawr	inlet, channel
Si, sidi	tomb
W, wad, wadi, wed	valley, river, river bed

CHINESE CHARTING TERMS

Chg, chiang	river, shoal, harbor, inlet, channel, sound
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DANISH CHARTING TERMS

B	bay, bight
Banke, bk	bank
Bugt	bay, bight
Fj, fjord	inlet
Grd, grund	shoal
Havn, havnen	harbor
Hd	headland
Hm	islet
Hn	harbor
Hne	islets
Holm, holmene	islet, islets
Hoved	headland
K, kap	cape
N, nord, nordre	north, northern
One, oyne, oyene	islands
Pt, pynt	point
Skoer, skjaer, skr	rock above water
Sd, sund, sundet	sound

DUTCH (NETHERLANDS) CHARTING TERMS

As	ash
CG	
Bas	bay
BaZ	woods in general
Berg, bg	notice to mariners
Bk	mountain
Br	bank, broken
Bu	brown, latitude
Bu	blue
CG	coast guard station
Cy	clay
D	
Dia	dark
Dm	diaphone
Dm	decimeter
Eb	ebb
F	fine
Flo	chimney with flare
G	gravel, shingle, green, gulf
Gb	checkered, ground
GEB	range
Gr	great, large
Gs	gray
H	cape, hook, head, headland, hour
Hk	reformed church
Horizontale lichten	horizontal lights
HW	high water

K	creek, cape
Kenb, kenbar	conspicuous, remarkable
Kl, klein	little, small
Kn	knot
Krt	see chart
Kt	chalk
L	light, longitude
LAT	lowest astronomical tide
LW	low water
LWS	low water springs
M	meter, mud, muddy, nautical mile
Min	minute
MI	marl
Mond, monding	mouth
Mosselen, Ms	mussels

N	north
No	number
Nw, nwe	new
O	
OMS	oysters
OMS	submarine fog signal
Pas	passage, pass
Pt	point
R	red, river, stream
Rf, rif	reef
Ru	ruins
S	sand, south
Sh	shells
Sk	ooze
Sp	speckled
SS	signal station
St	saint
Stn	station
Tr	tower

V	volcanic
Vm	fathom
Vs	flagstaff, flagpole
Vss	established traffic separation scheme
Vt	foot, feet
W	white
Y	yellow, amber
ZW, zwart	black

FINNISH CHARTING TERMS

K	rock, reef
Kallio	rock
Kari	rock, reef
Kivi	rock
Luodet, luoto, lu	rock(s)
Ma, matola	shoal
Sa, saaret, saari	island(s)
Torni, tr	tower

FRENCH CHARTING TERMS

A, Ae	inlet, aeronautical
Ant	front light
App, appr	approach
Arch, archipel	archipelago
Arg	clay
+Astro	astronomic station
Aux	auxiliary light

V Abbreviations of principal foreign terms, (Glossary)

B	boulders, bay, shoal, white, blue	F el	isophase light
Baie	bay	Feu	light
Bal tel	telegraph-cable (landing beacon)	F f	fixed (steady light)
Bc	bank	Fin	fine
B de sauv	lifeboat station	Fjd	fjord
Bk, bks	bank, banks	Fl	large river, single-flashing (total duration of light less than dark)
Bl	blue	Fla	oil derrick
Blanc	white	Fo	occulting light
Blds	boulders	Fque	factory
Ble	battery	Fr	suburb
BIK	black	FS	flag tower
B M	low water	Ft	fort
BM	bench mark	FV	revolving, rotating light
Bn	basin	G	coarse, gulf, large, great
Bo, boue	ooze, boulder	Ga, gal	shingle, gravel
Br	broken, stream	Gaz	gas tank
Brk	broken	Gd	ground
C	cape, cove, inlet	Gde	large, great
Ca	calcareous	Gg	fog gong
Cal	calcareous, channel, narrows	Gl	glacier
Cap	cape	Glu	sticky
Carre, carriere	mine	Gp	group
Cath	cathedral	Gr	gravel, gray
C de G	coast guard station	Grd	ground
Ch, Chal, chan	channel, narrows, chimney, stack	H	hard
Chap	chapel	Hol hop	hospital
Chat, chau	castle	Hd	head, headland
Chou d'eau	water tower, standpipe	H de V	town hall
Chee	chimney stack	Hn	haven
Chen	channel	Hr	height, harbor
Chk, chl	channel, narrows	Hrd	hard
Chile	chapel	Ht fd	shoal
Chno	range	Huit	oysters
Cl	bell buoy, fog bell	I, is, Ile, ilot, it, its	island, islands, islet
Cler	steeple	Ineg	uneven
Co, cor	coral	Inf	lower, lower light
Coll, colline	hill	Int	inlet, intensified, inner
Coq	shells	Intd, interdit	prohibited
Cq	shells	J	yellow
Cr	creek	Jct	junction
Crl	coral	L, lac	lake, loch, lough
D	dark, hard	Log	logoon
Dec	uncovers	Lav	lava
Det, detr	strait, destroyed	Ldg	landing
Detroit	strait	Le, les	ledge, ledges
Detroit	destroyed	Lndg	landing
Dist	district	Lum	luminous
Dk	dark	M	marl, mud, soft
Dn	dolphin	Mod	madrepores
Dne	customhouse	Mat	varied
Duc d'Albe	dolphin	ME	neap tide
Dur	hard	Mge	anchorage
E, eclat	flash	Mgne	mountain
Egl	church	Mid	middle
El	electric	Mlg	anchorage
Emb, embre	mouth	Mn	minute, mill
Ent	entrance, inlet	Mnt	monument
Entp	magazine	Mou	soft
Entree	entrance, inlet	Mouil, mouillage	anchorage
Env	about	Moul	mussels
Ep	wreck	Moy	middle
Est	east, estuary	Mt, mts	mount, mountain
Ev	every, eventual	Mus	mussels
Ext	outer	MWL	low water datum
F	ooze, light, unwatched light, fine	N	knots, black, north
F Aero	aeronautical light	NL	new moon
F b oe	fixed and group flashing light		
F b e	fixed and flashing light		
F det br	fog detector light		
Fd	fjord, ground		
F e	single flashing light		

V Abbreviations of principal foreign terms, (Glossary)

Nrs	narrows	Sir	siren
Nv	new	Sm	submarine, statute mile
O	annual change nil, occultation	Sm, sml	small
Obs	obstruction	So, sft	soft
Obsc, obsd	obscured light	Som	summit
Occas	unwatched light, occasional light	Sous-marin	submarine
Org	orange	Sp, spr	spring tide
P	port	St, ste	Saint
Pas	passage	Stf	stiff
Pav	pavilion	Stn	station
Peb	pebbles	Str	strait
Pen	peninsula	Stk	sticky
Pl	stones	Sup	higher
Pic	peak	Sy	sticky
Pierres	stones	Syz	syzygy
Pit, pite	small, little	T	tufa
Pk	peak	Tel	telegraph
Pl	full moon	Temp, tempre	temporary
Plo	tableland, sunken flat	The, tour, tr	tower
Pm	high water	Tr	tufa
Pn	peak	U	minutes
Post	rear light	Us	factory
Pr I	peninsula	V	green, vertical lights
Prom	promontory	Var	varied
Pt, pte	landing, point	VC	see chart
PTT	post office	VE	spring tide
Pyr	pyramid	Vig	lookout station, watchtower
Q	quay	Vio	violet
R	river, rock, submerged rock, radio telegraph station, road, roadstead, red	Vis	visible (range), conspicuous
Ra	radar responder beacon	Vol sm	submarine volcano
RaRa	radar station	VPI	see plan
Rau	stream	Vue	view point
Rav	ravine	Vx	old
RC	circular radiobeacon	W, wh	white
RC Aero	aeronautical radiobeacon	WT	watertower, standpipe
Rd	road, roadstead, directional radiobeacon, radio range	Y	nautical mile
Re	rock, submerged rock	GAEIC CHARTING TERMS	
Regl	standard	Bo, bogha	sunken rock
Relt	bearing	E, eilean, eileannen, en	island(s), islet(s)
Rem	remarkable	Ru, rubha	point
Rer	rock, usually above water	Sg, sceir, sgr	rock
Resr	oil tank	GERMAN CHARTING TERMS	
Rf, rfs	reef, reefs	A, amt, anslalt	office, establishment
RG	radio direction finding station	Ankpl	anchorage
Rge	range of mountains	Anl	jetty
Rgl	standard	Anst	approach
Riv	river	Auff	conspicuous
Rk, rks	rock, rocks	Aust	oysters
R Lt	riprol surrounding light	B	boy
Ro Bn	radiobeacon	Bntt	battery
Ro Tel	radio telephone station	Beobs	projected
Ro Tr	radio tower	Ber	correction
Rsv	oil tank	Bk	beacon in general, fixed beacon
RT	radio telephone station	Bl, blau	blue
RW	rotating loop radiobeacon	Blink, blitz	long flash, short flash
S	sand, sector, south	Blk, blz	long flash, short flash
Sal br	fog-signal station	Blk (1&2)	composite group long flashing light
Sante, ste	health officer's office	Blk (2)	group long flashing light
Sbrv	color of sector, white, red, green	Blz	short flashing light
Sect	sector	Blz-Blk	short-long flashing light
Sf	stiff	Blz (1&2)	composite group short flashing light
SG	sand and gravel	Blz (3)	group short flashing light
Sft	soft	Bn	well
Sh	shoal	Bnt	varicolored
Shin	shingle	Br	brown, chocolate, latitude
Shl	shoal	Bucht	bay
Sif	fog whistle		
Sif Gg	whistle buoy		

V Abbreviations of principal foreign terms, (Glossary)

Dev-Dlb	deviation dolphin	Kst-W	coast guard station
Dev-Tn	compass adjustment buoy	Ku	cupola
Di	diatoms	Laz	lazaret
Dkl	dark	Lcht-TM	light
Drchf	passage, pass	Ldg-Pl	landing, landing place
Ehem	ancient	Lg	longitude
Einf	inlet	Lv	lava
Eis-s	ice signal station	M	oysterbed
Enge	narrows	Mdg	mouth
E-werk	electric works	Meeresarm	loch, lough
Expl, explosiv	explosive	Mgl	marl
F	fine, fixed light	Mk	marker
Fbr	factory	Mile-Bk	mile beacon
Fd	fjord	MNpHW	mean high water neaps
Fhrwss	channel	MNpNW	mean low water neaps
Fi, fi-hfn	fishing light, fishing harbor	Mo(K)	morse code light, according to character
Fj	fjord	MSpHW	mean high water springs
Fkl'	quick flashing light	MSpNW	mean low water springs
Fkl unt	interrupted quick flashing light	Mt	middle
Fl	river	Mt-F	middle light
Flgtm	flag tower	Mun-Vers Gbt	explosives dumping ground
Fls, fls,	rock, rocky	MW	mean tide level
FluB	river		
Fr	foraminifera		
G	yellow, gulf	N	north
Gas-T	gas tank, gasometer	NF	radio list
Gb	coarse	NFS	notices to mariners
GB	large, great	N-L	fog light
Gbg	range	N-lach, norlich	northern
GbK	shingle	NO	northeast
Gd	ground	Not-S	distress signal station
Gef-S	danger signal station	Nr	number
Gel	extinguished	N-S	fog signal station
Gelb	yellow	N-Such-F	fog detector light
Gem	reported	NW	low water
Ger	lesser	O	east
Gez-F, gezeitenfeuer	tidal light	Ober feuer, ob-f	rear light, upper light
Ggf	eventual	Obs	observatory
Gl	globingerina	Od, oder	or
Glt	isophase light	Ol-T, oltank	oiltank
Gl-Tn	bell buoy	Or	orange
Gn	green	P-A	post office
Gr	gray	Pf, pfohle	pile
Grs	see-weed, grass, mottes	Priv	private
H	light	Pt	pteropods
Hfn	haven, harbor, port	Pyr	pyramid
Hg	hill	Qm-F	cross light
H-I	peninsula	Qrt-Tn	quarantine buoy
HK	point	QTG kustenfunkstelle r	QTG-radio station
Hi-Tn	whistle buoy	Qu	quartz
Hs	house	R	QTG-radio station, reef, red
Ht	hard, hut	Ra	radar, radar scanner, radar station
HW	high water	Ra-Ku	radar cupola, radar dome
I	institute	Ra-Mst	radar mast
K	gravel	Ra-Tm	radar tower
Ka	calcareous	RC	circular radiobeacon
Kai	quay	RC (Aero)	aeronautical radiobeacon
Kas	barracks	Rcht-Bk	leading beacon
Kb-Bk	telegraph cable beacon	Rcht-F	leading light
Kb-Tn	telegraph cable buoy	RD	directional radiobeacon, radio range
Kblg	cable length	Rf	reef
Kl	little	RG	radio direction finding station
Klippe, klp	rock, sunken rock	Rgd	sand reef
Kl St	pebbles	R-S	lifeboat station, lifesaving station
Kn	knot	Ru	ruins
Kor, koralle	coral	RW	consol station, rotating loop
Kr	chalk		radiobeacon
Krhs	hospital	S	black, station, south
		Sc	scoriae

V Abbreviations of principal foreign terms, (Glossary)

Sch	shells
Sch-H	obstruction, depth unknown
Sch-H	sunken danger with depth, cleared by wire drag (in German waters by diver)
Schl	oze, castle
Schp	shed
Schutt-S	spoil ground
Schw	sponge, faint
Sd	sand, sound
Sdkor	sabellaria
SFKI	very quick flashing light
Sgn	signal
Sgn-S	international signal station
Shb	soiling directions
Siel	sewer
Sk	mud, muddy
Skr	vertical
S-liech	southern
Sm	nautical mile
SMt	seamount
SO	southeast
Sp	summit, peak
St	flinty, stones
Stg	fucus, kelp
Str	strait
Strm-S	storm signal station
T	clay, and
Tafel	board
Tg-F	daytime light
Tlws	partly
Tm-Bk	tower beacon
Tst	tufa
Ton	clay
T-S	telegraph office
U	and
Ua	etc, other
Ubr	occulting light
Ubr(2)	group occulting light
Ubr(2&3)	composite group occulting light
U-F	front light, lower light
Und	and
Ungf	approximate
Unr gd	foul ground
Unr (mun)	foul (explosives)
Unr unrein	foul, wreck, remains dangerous only for anchoring
Unrein (munition)	foul (explosives)
Unterfeuer	front light, lower light
Untf	shoal
Usw	and so on
U-Wss-Gl	submarine fog bell (action of waves)
U-Wss-Gl	submarine fog bell (mechanical)
V	volcanic
Va	cinders
Vdklt	obscured
Verb	prohibited
Viol	violet
Vrd	concealed
Vrsdt	shoaled
Vrst	intensified
Vsw	experimented
W	lookout station, watch tower, white
Wache, wachturm	lookout station, watch tower
Warn-F, warnfeuer	obstruction light
Wch	soft
Wchs Blk wr	long flashing light alternating, white-red
Wchs Blz wr	short flashing light alternating, white-red
Wchs Ubrwr	occulting light alternating white-red
Wchs(2)wgn	group alternating light, white-green

Wchs wr	alternating light, white-red
Weiß-rot	group alternating light, white-red
Wgr	horizontal
Wk	wreck
W-S	weather signal station
WSS-S	tide signal station
WSS-T	water tank
W-Tm	lookout station
Z, zah	tenacious, sticky
Zbr	broken
Zgl	brick kiln
Zolla-A, zoll-w	custom-house
Zrst	destroyed
Z-S	refuge for shipwrecked mariners
Zt-S	time signal station
Ztwl	temporary, temporary buoy
Ztws	occasional

GREEK CHARTING TERMS

Ak, akra, akrotirion	cape
Ali, angoli	bight, open bay
Ang, angirovlon	anchorage
If, ifaloi, ifalos	reef(s)
Kolpos, ks	gulf
Limin, In	harbor
N	island
Nes	islet
Nis, nisdhes, nisis	islet(s)
Nisoī, nisos	island(s)
Noi	island
O, ormos	bay
Pot, potamōs	river
Sk, skopeloi, skopelos	reef(s)
Ves	rocky islets
Vis	rocky islet
Voi, vos	rock(s)
Vrakhoi	rock(s)
Vrakhonisides	rocky islets
Vrakhonisis	rocky islet
Vrakhos	rock(s)

ICELANDIC CHARTING TERMS

Fjordur, fjr	fjord
Gr, grunn	shoal

INDONESIAN CHARTING TERMS

Abu	cinders
Abu-abu	gray
Adjaiib	remarkable
Arus	stream
Atap seng	zinc roof
Aum kabut	fog whistle
Badai	storm
Bagus	fire
Bahan peledak	explosive
Bajongan	shading
Bakobako	mangroves
Baloi kota	town hall
Bandar	harbor, port
Bangunan	building
Barok	barracks
Baru	new
Barat	west
Barat daja	southwest
Barat laut	northwest
Baringan	bearing
Batre	battery
Batu	stones
Batu besar	boulder
Batu bulat-bulat	boulders
Batu karang	rock, rocky
Belukar	bushes
Berbatu-api	flinty

V Abbreviations of principal foreign terms, (Glossary)

Berduri	spicules	Kudus	saint
Berpasir	gritty	Kuning	yellow
Besar	great	Kwarsa	quartz
Besar (luas)	large	Laguna	lagoon
Biora	monastery, convent	Lahor	lava, lava flow
Biasa	ordinary	Lembah	valley
biru	blue	Liot	tenacious, sticky
Budjur	longitude	Limban	footbridge
Bukit	hill	Lintang	latitude
Bukit pasir	sandhills, dunes	Listrik	electric
Busuk	rotten	Luar	outer
Dalam	inner	Luas	large
Dalam air	submarine	Lumpur	mud, muddy
Danau	lake	Lumut	mussels
Daratan	land	Madrepora	madrepores
Dengan	with	Mata air	spring
Depa	fathom	Membusuk	decayed
Deradjat	degrees	Menit	minute
Derwerga	wharf, quay	Merah	red
Desimeter	decimeter	Mesjid	mosque
Detik	second	Milimeter	millimeter
Deviasi	deviation	Mil laut	nautical mile
Diatoms	diatoma	Miloutdjam	knots
Dibawah air	submerged	Muara	mouth
Dihentikan	discontinued	Muda	light
Dikenal	conspicuous	Nomor	number
Dirusak	destroyed	P	white
Diterangi	see plan	Pagar	fence
Dijalan masuk	entrance	Palem	tide gauge, tide pole
Djam	hour	Pasang	flood
Djarak	distant	Posir	sand
Djingga	orange	Potah	broken
Dok	dock	Paviljun	pavilion
Galongan	shipyard	Peg, pegunungan	range, mountain range
Gamping	chalk	Pelabuhan	road, roadstead
Gelangkepil	mooring ring	Pembetulan	correction
Gelap	eclipse	Penataran	establishment
Geredja	church, chapel	Pendaratan	landing place, leading stage, stairs
Gerundjal	uneven	Penerbitan	publication
Glester	glacier	Pengeluaran	edition
Gubug	shed, hut	Penggaraman	saltponds
Gudang	magazine	Penggergajian	saw mill
Gunung	mountain	Penting	prominent
H	black	Periode	period
Halus	soft	Perseroan	company
Hidau	green	Pertambangan	mine, quarry
Hitam	black	Pertjooaan	experimental
Institut	institute	Peternakan	farm
Intji	inch	Pteropods	pteropoda
Koki	foot	Pulau	island
Koku	stiff	Puntjak	summit, peak
Kompung	village	Puri	castle
Kasar	coarse	Putih	white
Katedral	cathedral	Rabuk	marl
Kelompok	group	Rawa	marsh, swamp, slough
Kepulauan	archipelago	Rintangan	obstruction
Kapur	chalk	Ruangan	pillar
Keron	crane	Rumah	house
Kerang	shells, oysters	Rumput	grass
Kerangka	a number of sunken ships	Sawah	paddy fields
Keros	hard	Scoria	scoriae
Kerikil	gravel, shingle, pebbles	Sedjati	true
Ketjepotan	velocity, rate	Sekolah	school
Ketjil	little	Sektor	sector
Ketjil (sempit)	large	Selat	strait
Kira-kira	approximate, about	Selatan	south
Koral	coral	Semenanjung	peninsula
Kota	city or town	Sentimeter	centimeter
Kpn	archipelago	Seperempat	quarter, quadrature
Kr, krueng	river		

V Abbreviations of principal foreign terms, (Glossary)

Stadion	stadium	Bianco	white
Suar atas	upper light	BM	low water
Suar bawah	lower light	Bna	quay
Suar belakang	rear light	Boc,	mouth
Suar darurat	auxiliary light	Bq	quarantine buoy
Suar depan	front light	Br	dolphin
Sumur	well	Briccole	dolphin
Sungai	river, stream	Bt	mooring buoy with telephonic communications
Surut	ebb	Btg	mooring buoy with telegraphic communications
Taman	park, garden	BVB	compass adjustment buoy
Tandjung	cape	C	cape
Tanggul	embankment, levee	Cal	wharf
Tangki	tank	Cala	cove
Telegrap	telegraph	Cam Neb	fog bell
Telepon	telephone	Cam Stm	submarine fog bell
Teluk	bay, gulf, creek, cove	Can	channel
Tembok	wall	Can Neb	fog gun
Tempat	ground	Capo	cape
Tengah	middle	Cas	castle
Tenggora	southeast	Cl	cove
Terbatas	pyramid	Cle	hill
Tertutupes	glacial	Cma	summit
Terusan	tunnel (railroad or road), cutting	Cna	range
Tiang	wreck masts visible	Co	cape
Tiangkepil	dolphin	Coclo, cocuzzolo	boulder
Tiap-tiap	every	Colle	hill
Timur	east	Comlo	gable
Tinggi	height, altitude	Convto abb	monastery, convent
Tjandi	temple	Cop	covers
Tjerlang	flash	Corne da nebbia	fog horn
Tjiatan	narrows	Cosp, conspicuo	conspicuous
Tjoklat	brown, chocolate	Cn	shells
Topan	typhoon	Cr	coral
TPSB	great trigonometrical survey station	Czo	mountain, mount
Triangulasi	triangulation	Decl	variation
Tua	old	Depo	warehouse, storehouse
Tua, gelap	dark	Dim ann	decreasing annually
Udjung	cape	Dir	directional
Ug	cape	Dr	dredged
Unga	violet		
Utara	north		
Variasi	variation		
W, wai	river		

ITALIAN CHARTING TERMS

A	kelp	Ecl	occultation
A band	flagstaff, flagpole	EF	list of lights
Aco	ancient	Elettr	electric
Aff	dries	Eso	estuary
Alb	hotel	Est	east
All to, allineamento e rotta	leading line, range line	Eta	entrance
AM	high water	F	mud, muddy, river
AN	notice to mariners	Fca	factory
Anc, anco	anchorage	Fce	brick kiln
Ant	front	Fdo	fjord
Appr	approximate	F(Ff)	fixed light
AR	antenna radio	Fi Neb	fog whistle
Ar	orange	F Lam	fixed and flashing light
Arcgo	archipelago	F Lam	fixed and group flashing light
A seg	signal mast	Flo	chimney, stack
Astr	astronomical	Fno	fountain
Aum ann	increasing annually	G	yellow
Aus	auxiliary	Gde	great
A var nulla	annual change nil	Grp	group
Azz, azzurro	blue	Gta	jetty
B	bay	H	altitude
Ba, baia	bay	I	island, islands, islet, islets
Banco	bank	IMAM	mean establishment of the port
Bottiglia	foreshore: strand (in general)	Inf	lower, lower light
Bco	bank	Int	intermittent light, occulting light
		Irreg	irregular

V Abbreviations of principal foreign terms, (Glossary)

ISAM	high water full and change (vulgar establishment of the port)	RC	circular radiobeacon
Iso	isophasic	RC AERO	aeronautical radiobeacon
Ist, istitut	institute	RD	directional radiobeacon, radio range
Ito	islet	Rdf	radio broadcasting station
Lam	flash	Ref	wreck showing any portion of hull or superstructure
Lam	group flashing light	RG	radio direction finding station
Lam L	long flashing light	Rifl	reflector
LM	mean sea level	Ril	bearing
LRS	chart datum (datum for sounding reduction)	Rist	reprint
Lum	lighted, luminous	RT	radio telephone station
M	madrepores, magnetic, mountain, mount	R Telem	distance finding station (synchronized signals)
Mag	magazine	RW	rotating loop radiobeacon
Mor	maritime	S	sand, saint, south
MAMQ	mean high water neaps	Sc	quick flashing light, ridge of rocks
MAMS	mean high water springs	Sca	shoal
MBMQ	mean low water neaps	Scaf	wreck
MBMS	mean low water springs	Sci, sco	rock(s), reef(s)
Mgna	mountain, mount	Scogliera	ridge, ridge of rocks
Mlo, molo	mole, pier	Scogli, scoglio	rock(s), reef(s)
Mun	town-hall	Scop Em	uncovers
Nauto	nautophone	Scra	ridge
NE	new edition	Se, secca	shoal(s)
Nord	north	Seg	signal
Nord Est	northeast	Seg Neb	fog signal station
Nord Ouest	northwest	Segnale	signal
NP	new chart	Sem, semaforo	semaphore
Nvo	new	Serb, serbatoio bofata	oil tank
Occas	occasional light	Serra	range of mountains
Off	factory	Set, settore	sector
Orriz	horizontal light	SMt	seamount
Osc	obscured light	Somm	submerged
Osp	hospital	Sopp, soppesso	discontinued
Oss	observatory	Sra	range of mountains
Ost	obstruction	Stab	establishment
Ouest	west	Ste	station
P	square	Ste Pt	pilot station
Pali	piles, stakes, stumps, perches	Ste Solo	lifeboat station
Pass	pass, passage	Ste Seg	signal station
Pco	peak	Stm	submarine
Per	period	Sto, stretto	strait
PG	coast guard station	Sud	south
Pgio	mound, small hill	Sud Est	southeast
Pietre	stones	Sud Ouest	southwest
Pil	pillar	Sup	higher, upper
Pl	piles, stakes, stumps, perches	T	intermittent stream, torrent
Plo	peninsula	Tom	temporary light
Ple	groin	Tov	table-land
Plo	little, small	Tel	telegraph
Po	hill	Telno	telephone
Port, portolano	sailing directions	Torre	tower
Post	rear	Tre	tower
PTT	telegraph office	Tre Ved	lookout station, watchtower
Pref	government house	Tro Neb	fog trumpet
Prio	promontory	TV	television mast or tower
Prog	projected	Uff	office
Provv	provisional light	V	green, true, street
P sb	landing	Vo	villa
Pta	point, summit	Vedi piano	see plan
Pte	bridge	Verde	green
Pto	haven	Vert	vertical
Pubbl	publication	Vietato	prohibited
Pzo	peak	Viol	violet
R	radio telegraph station, rock, rocky, red	Vle	valley
Ra	road, roadstead, radar station	Vno	volcano
Ra (cosp)	radar conspicuous	Vo	old
Ra Rifl	radar reflector	VP	see plan
		Vto	prohibited
		Vto Anco	anchorage prohibited

V Abbreviations of principal foreign terms, (Glossary)

Zo	elevation of mean sea level above chart datum
JAPANESE CHARTING TERMS	
B	bay
Byoti	anchorage
Cab	cable length
Doke, de	mountain, hill
Destd	destroyed
Ga, gawa	river
GTS	great trigonometrical survey station
H	height
Ha, hana	cape, point
Hakuchi	roadstead
Hi	roadstead
Hn	haven
Hr	harbor
Irie	loch, lough
Irikuti	entrance
Ja, jima	island
Ka	river
Kaikyo, ko	strait
Kaiwan	gulf
Kako	estuary
Kawa	river
Ko	loch, lough, strait
Koro	passage
Kuti	mouth
Kyoko	fjord
LL	list of lights
Ma	village
Machi, mi	town
Mi, misaki, mki	cape
Mura	village
Sa	island
Saki	cape, point
San	mountain
Sankakusu	delta
Sdo	sound, pass, channel
Seto	narrow, strait
Shima	island
Si	cape, point
Sn	mountain
So	narrow, strait
Suido	sound, pass, channel
Take, te	hill, mountain
Wan	bay
Ya, yama	mountain
Zaki	cape, point
Zan	mountain
Zi	cape, point
Zn	mountain

MALAY CHARTING TERMS

A, ayer	stream
Bandar	seaport
Batang	river
Batu	rock
Bdr, bendar	seaport
Bt	hill
Btg	river
Bu	rock
Bukit	hill
Gg	shoal, reef, islet
Gg	mountain
Gosong, gosung	shoal, reef, islet
Gunong	mountain
Gusong	shoal, reef, islet
Kali	river
Kampong, kampung	village
Karang	coral reef, reef
Kg	village
Kg	coral reef, reef
Ki	river
Kla, kuala	river mouth

Lab, labn, labuan, labuhan	anchorage, harbor
Ma, muara	river mouth
Parit	stream, canal, ditch
Pelabuhan, pln	roadstead, anchorage
PP	group of islands
Prt	stream, canal, ditch
Pu, pulau	island
Pulau-pulau	group of islands
Pulo, pulu	island
Selat	strait
SH	strait
Si	river
Sungai, sungei	river
Tandjung, tandjung, tanjong	cape
Telok, teluk	bay
Tg	cape
Tk	bay

NORWEGIAN CHARTING TERMS

Aero	aeronautical
Ankerplass	anchoring berth, anchorage
Aust	east
Austre	eastern
Boe	rock (submerged rock)
Boke	tower beacon
Bokre fyr	rear light
Bonke	bank
Bekk	river, stream
Berg	mountain, mount, hill
Bg	mountain, hill
Bifyr	auxiliary light
Bla	blue
Bl, blink	flash
Blok	boulder
Blot	soft
Br	brown
Br, bredde	latitude
Bukt	bay, bight
By	city, town
Dia, diafon	diaphone
Dm	decimeter
Dnl	sailing directions
Duc d'albe	dolphin
Efs	notice to mariners
Elv	river, stream
F	fine, rock, rocky, fixed
Fomm	fathom
Forbar	navigable
Fast	stiff, fixed
Favn	fjord
Fd, fdn	fjord
Fin	fine
Flik	rock (submerged rock), bank
Flo	flood
Flu	sunken rock
Fm	occulting
Fm bl	fixed and flashing
Fm n fm gpoc	group occulting light
Fm oc	occultation
Fremre	front light
Fv	fathom
Fyr	light
Fyrskip	light vessel, light ship
G	green, coarse
Gl	yellow
Gml	old
Gn	green
Godt synlig	conspicuous
Gong	fog gong
Gp	group

V Abbreviations of principal foreign terms, (Glossary)

Gphbl, gp hurtigbl	interrupted quick flashing light	P	post office
Gp lynbl	group short flashing light	Pilar	pile, pillar
Gr	gravel	Pir	pier
Gr, gra	gray	Pos	position
Grad	degree, degrees	Pr	private
Gron	green	Puller	bollard
Grov	coarse	Pynt	point, head, headland
Grunne	ground, rock (submerged rock), shoal	R	mooring ring
Grus	gravel	Rod mast	radio mast, radio tower
Gs	sea-weed, grass	Rod st	radio broadcasting station
Gul	yellow	RC	circular radio beacon
H	white	RD	direction radiobeacon, radio range
Havn	harbor	Red	road, roadstead
Havn, havneby	harbor, port	Rev	reef, ridge
Hbl	quick flashing light	RG	radio directing finding station
Hd	altitude, height	Rod	red
Hette	obstruction	RS	lifesaving station
Hn	harbor	R st	radio telegraph station
Holme	islet	RT st	radio telephone station
Hv, hvert	every	RW	rotating loop radio beacon
Hvit	white	S	second (of time), southern, south, black
HW	high water	Sec, sek	second (of time)
In	inner	Sekt, sektor	sector
K	cape	Sem, semafor	semaphore
Koi	quay, wharf	Sg	shingle, pebbles
Kbl	cable	Sk	chimney, stack
Kil	cove	Skall	rock (submerged rock)
Klok	rock (submerged rock)	Skalle	shoal
Kn	knots	Skjær, skjært	shoal
Kr	coral	Skjer	rock (submerged rock)
L	little, small, clay	Skjærane	rocks above water
Lavere	lower, front light	Skolt	rock (submerged rock)
Lav kyst	flat coast	Sl	mud, muddy, ooze
Lbl	short flashing light	So	southeast
Ldg	longitude	Sor	south
Lei	channel	Sp	spring tide
Lengde	longitude	St	saint, large, stones
Lille	little, small	Stake	spar buoy
Lop	channel	Stein	stones
Los	pilot station always attended (on older charts)	Sto	ramp
Ls	pilot office	Stor	large
LW	low water	St St	boulders
Lykt	light, light beacon	Svart	black
Lynbl, lynblink	short flashing light	Syd	south
Lys	light	Sydlige	southern
Lysboye	light buoy	Sydvest	southwest
Lysende	lighted, luminous	Synl, synlig (rekkevidde)	visible (range)
Lysflate	light-float	T	ton
M	middle, with, nautical	Taren	sunken rock
Magn	magnetic	Tarn	tower
Med	with	Tn	sunken rock
Mil	nautical mile	TS	telegraph station
Myr	marsh, swamp	Tydelig	conspicuous
N	north, nautical mile, northern	Uren bunn	foul ground
Ned	lower	Ute av bruk	abandoned
Nes	head, headland	Ute av posisjon	out of position
No	northeast, number	Uv	submarine
Nord	north	Uv kl	submarine fog bell
Np	neap tide	V	cairn, tower beacon, western
Nr	number	Vest	west
Nut	peak	Vg	bay, cove
Ny	new	Vks	alternating light
Os	estuary mouth	Vrok	wreck
Ost	east	Vorr	submerged jetty
Ov	higher, upper, rear (light)	Vs	weather signal station
Ovre	upper	Yt, ytre	outer
Oy	island	Zo	elevation of mean sea level above chart datum

V Abbreviations of principal foreign terms, (Glossary)

PERSIAN CHARTING TERMS

B, bandar	harbor
Jab, jabol	hill, mountain
Jazh, jazireh	island, peninsula
K, khowr	inlet, channel

POLISH CHARTING TERMS

Jezi, jezioro	lake
Kan, kanal	channel
Miel, mielizna	shoal
R, rzeka	river
Wa, wyspa	island
Zat, zatoka	gulf, bay

PORTUGUESE CHARTING TERMS

A	sand, yellow, range of tide
Aband	abandoned
Aero	aeronautical
Aerom.	marine or air navigational light
Aeroporto	airport
Aero RC	aeronautical radiobeacon
AF, Af	Shoal, fine sand
Afl	muddy fine sand
Ag	coarse sand, spire, steeple, compass adjustment buoy
Aguada	watering place
Agua descorada	discolored water
Al	muddy sand
Alf	custom-house
Alg	kelp, sea-weed
Alt	alternating light
Am	neap tide, marine and air navigation light, yellow
Amorra	cable length
Amarraco	mooring
Amb, ambar	amber
AN	notices to mariners
Anc	roadstead
Ang	cove
Ant, anterior	front, front light
Antigo	ancient
Apito	fog whistle
Apodrecido	rotten
Aprox	approximate
Ar	clay
Arborizado	woodland
Arco vis	sector of visibility
Arg	clay
Arm	warehouse, storehouse
Arq	archipelago
Arr	brook
Ars	Arsenal
At, AT	lookout tower, power transmission line
Aux	auxiliary light
Av	spring tide, avenue
Az	blue
B	gravel, bay, white
Bal	beacon, range targets (markers)
Barragem	dam
Bat, bateria	battery
Bb	fathom
Bc, Bco	bank
BM	low water
BM AM	mean low water neaps
BM AV	mean low water springs
BM de AV do India	Indian spring low water
Br	white, fathom
Bt	tenacious
Buz	fog horn
Buz elt, buzina de neveiro electrica	electric fog gun
Bxo, Bxos, Bxio, Bxo	shoal
C	strand, shingle, cape, gravel

Cabeco de poco	wellhead
Cabo	head, headland
Cabo submarino	submarine cable
Cach	waterfalls
Cada	every
Cal	inlet, calcareous
Calhau	strand
Calvario	calvary, cross
Camp	spire, steeple
Can, canal	channel
Canalizacoes subm	submarine pipeline area
Canhao de neveiro (cerracao)	fog gun
Cap	chapel
Carta	chart
Casa de campo	villa
Cast	castle, brown
Casuarina filao	filao
Cat, catedral	cathedral
Cem	cemetery (non-christian)
Cerca de	about
Ch, Chm, CH	chimney, stack, elevation of top of building
Ci	cirripeda
Cin, Cin F	ash, cinders
Cin, cinzento	gray
Cir	cirripeda
Cist, cisterna	cistern
Cl	light (quality of bottom)
CM	town-hall
Cme	summit
Co	shells, cape
Cob, cobre	covers
Col	hill
Com	reported
Comp ag	compass adjustment beacon
Compia	company
Con	shells, cape
Con, conv	convent
Consp	conspicuous
Cor	coral, shoal
Cord	range of mountains
Cor do sector	color of sector
Corr	correction
Corr, corrente	stream
Cre	chalk
Crista sub	ridge
Cruz	cross
CS	wreck, telegraph cable buoy
Ct	quick flashing light
Ctl(int)	interrupted quick flashing light
CtR	continuous very quick light
CtRI	interrupted very quick light
CtR (n)	group very quick light
CTT	post and telegraph office
Ctu	continuous ultra quick light
CtuI	interrupted ultra quick light
Cume	summit
Cup	cupola
Cz	gray
D	diatoms, distance, delta, doubtful, hard
DA	water tower, stand-pipe
DC	oil tank
Decl	variation
Des	landing
Des, descob, descobre	uncovers, dries (periodicamente)
Descor, descolorido	discolored
Desigual	uneven
Dest	destroyed
Det	decayed
Dia	diaphone
Dist	distant
Distr	district
D Mg	variation

V Abbreviations of principal foreign terms, (Glossary)

Dol	dolphin	GTS	great trigonometrical survey
Duque de alba	dolphin	station	
Duro	hard	Greenwich	
DW	deep water route		
E	dark, red	H	amplitude of a tidal component (half of the range), height, elevation, hour
Ecl	eclipse	Hor, Horiz.	horizontal lights
Ed	edition	Hora	time signal station, hour
Electr, elt	electric	I	intermittent light, island
Elev, elevador	elevator	Ig	church
Empena	gable	Igp	creek
En ch, enchente	flood	Igreja	church
Enf	in line (range)	IH	sole place of charts and nautical publications of the instituto hidrografico
Ens	cove	Il	islet (islets)
Ent	entrance, magazine	Ilheu	islet
Equin, equinocial	equinoctial	In	discontinued
Erv mar	sea-weed, grass	Inf	lower, lower light
ES	signal station	Inst	institute
Esc	school, dark, scoriae	Int	inner, intermittent light
ES(corr)	stream signal station	Inter	intermediate, intermediate light
ES(gelo)	ice signal station	Irreg	irregular light
ES(mare)	tide signal station	Is, Iso	isophase light
ES(meteor)	weather signal station	Ita	islet
Esp	sponge	J, jarda	yard
Espic, espiculos	spicules	L	mud, muddy, lake, light
Eponja	sponge	La, lamo	sandy mud, lagoon, orange
ES(temp)	storm signal station	LAN	list of navigational aids
Est	stadium	LAR	list of radio navigational aids
Estab	established	L aux	auxiliary light
Estol, estaleiro	shipyard	Laz, lazareto	lazaret
Estb	established	LC	full moon
Est salv	lifesaving station	Ld	ooze
Esto	creek	L det nev	fog detector light
Estr	strait	L dir	directional light
Exp	experimental	LF	list of lights
Explos	explosive, explosive fog signal	L int	intermittent light
Ext	outer	L irreg	irregular light
Extr, extremo	extreme	List, listrado	streaky
F	fixed light, branch, fine	LN	new moon
Fab	factory	L/ocas	occasional light
Fal	cliff, bluff	Lp	flash, flashing light
Faz	farm	L port	private light
Fc	fucus	LpC	short flashing light
Fd	fjord	LpCl	short-long flashing light
F Gr Lp	fixed and group flashing light	Lp R	quick flashing light
F Lp	fixed and flashing light	L prov	provisional light
For	foraminifera	LpRIn	interrupted quick flashing light
Foz	mouth	LpUR	ultra quick flashing light
Fr	faint light	LpURIn	interrupted ultra quick flashing light
FRI	fixed and flashing light	L rot	rotating light
FRI Agr(n), FRI(n)	fixed and group flashing light	L temp	temporary light
Ft, Fte	fort, small lighthouse	Lv	lava
Fu	fucus	Lz	light
G	corse, gulf, phase lag	M	meter, nautical mile, bearing
Gas	gasometer, gas tank	Mad	madrepore
Gasoduto	gas pipeline	Mag	magnetic
GC	Coast Guard station	Mal, malhado	speckled
Gde	great	Mang	manganese
Gelos	ice signal station	Mangal	mangrove
Ggo	fog gong, gong buoy	Manganesio	manganese
Gl	globigerina	Mangrulho	dolphin
Glac, glaciaries	glacial, glaciers	Mangue	mangrove
Gol	narrows	Mont, mantido	maintained
Gongo	fog gong	Marabuto	marabout
Gov	government house	Mare	tide
Gp	group	Mareg, maregrafo	tide gauge
Gr	great, large	Mares	tide signal station
Gr Lp	group flashing light	Mor, maritimo	maritime
Gr Lp C	group short flashing light	Mas, MAST, Most	mast, signal mast
Gr Lp MR	group very quick flashing light		
Gr Lp R	group quick flashing light		
Gr Oc	group occulting light		

V Abbreviations of principal foreign terms, (Glossary)

MAST AT	power transmission mast	Plan	tableland
MAST (Mas)TV	television mast	PM	high water
MASTROS	wreck of which only the masts are visible	PM AM	mean high water neaps
Mot	boulder	PM AV	mean high water springs
Md	ground (shells), middle	Po	peak, polyzoo
Med	middle	Poco	well
Merc	magazine	Pod	rotten
Meteo	weather signal station	Pol	polyparia, polyzoo, inch
Mex, mexilhao	mussels	Pontao	hulk
Mg	magnetic, marl	Pos, posicao	position
Min	minute of time	Post	rear, rear light
Mi	soft	Poste	post
MN	bench mark	Pp	pumice
Mo	hill	Pr	black, beach
Mo	morse code light	Prodos	grass fields
MON, Mon	monument	Prel	preliminary
Most	monastery, convent	Princ	principal light
Mt	mountain, mount	Proem, proeminent	prominent
Mt sub	seamount	Prof menor, Profundidade minima em canais (ou rios) estreitos	least depth in narrow channels
Mun	municipality	Proib	prohibited
 Na sa	our lady	Proj	projected
Nauto	nautophone	Prom	promontory
Navegavel, Navg	navigable	Prov	provisional, provisional light
NC	new chart	Pt	pteropods
NE	new edition	Pta	point
NM, nm	mean sea level, mean tide level	Ptal	head, headland
No	number	Pub, Publ	publication
No	knot	Purp, purpura	purple
Nord	noria	 Q	quarantine, quarantine buoy, quarter, quadrature, broken, farm
Nos	knots	QC	2nd quarter
Not, notavel	remarkable	QM	1st quarter
Novo	new	Qta	farm
NR	chart datum (for sounding reduction)	Otel	barrocks
NS	our lord, our lady	Qtz	quartz
NV	unwatched light	 R	true course, street, rock, rocky, river, stream, radiotelegraph station, measured distance, recommended track
 Obs	observatory	Ra	river, stream, radar guided track, radar station
Obsc	obscured light	Rod	radiolaria
Obst, Obstr	obstruction	Roda	road, roadstead
Oc	occulting light	Rap	ramp
Ocas	occasional, occasional light	Rc	rock
Ocid, occidental	western	Rch	creek
Oc Agr (n), Oc (n)	group occulting light	Rd, RD	radiolaria, directional radiobeacon
Oc (n t m)	composite group-occulting light	Red	small
Ocultacao	occultation	Res	tank
OI	brick kiln	Res met, Residuos metalicos	mattes
Oleoduto	oil pipe	Rest	spit of land
Ord ordinario	ordinary	RF	radiobeacon
Os, Ost	oysters	Rfe	reef
O sub	submarine oscillator	RG	radio direction finding station
 P	broken, black, harbor, port, haven, preliminary, stones	RI	flashing light
Pa	branch	RI Agr(n)	group flashing light
Pad, padrao	standard	RI L	long-flashing light
Pag, pagode	pagoda	RI(n)	group flashing light
Par	gray	RI(n+m)	composite group flashing light
Part	private, privately, private aid to navigation	Riba	river, stream
 Pas, Pass	passage, pass	Ric	bar
Pc	peak	Rio	river
Pcel	bank, shelf	RN	bench mark
Pe	foot	Rocha	rock, rocky
Ped, pedregoso	flinty	Rot	revolving light, rotating light
Pen	peninsula	RT	radio telephone station
Peq	small, little	Ru, ruinas	ruins
Per	period	RV	true course
Pesq	fish haven	RW	rotating loop radiobeacon
PICO SUB	seamount	 S	pebbles, saint, second of time, syzygy
Pil, pilar	dolphin, pile, pillar	So	range of mountains, gritty
PILOTOS	pilot station		
Pinhal	coniferous woodland		
Pir, piramide	pyramid		

V Abbreviations of principal foreign terms, (Glossary)

Sarg, sargaco	kelp, sea-tangle
Sc	small bay
Sem	semaphore
Ser	fog siren, saw mill
Set, setentrional	northern
Simb	symbol
Sin ac sub	submarine sound signal with platform
Sinais	signal station
Sinal	signal
Sino	fog bell
Sino sub	submarine fog bell
Sir	fog siren
Sizigia	syzygy
So	height of mean sea level above the zero of tidal staff
St, Sto, sto	saint, farm
Sub	submarine
Subm	submerged
Sup	higher, upper light
T	ton, temporary light, ground
Temp	temporary light
Temp bud, Templo budista	buddhist temple, joss-house
Tempo	storm signal station
Tf, TF	tufa, federal territory
T oleo	oil tank
Tr	tower, reed horn, power transmission mast
Trib	courthouse
Tufo	tufa
U	unit of height
Ur	bank, shelf
V	see, ooze, true, green
Va, vale	valley
Var	stranding harbor (dries at low-water)
Var, variado	varied
Vau	ford
Vaz, vazante	ebb
Vd	green
Velho	old
Vel, velocidade	velocity, rate
Ver	see
Vert	vertical, vertical lights
Vi	violet
Vig	lookout station, watch tower
Viol	violet
Vis, visivel (alcance)	visible (range)
Vm	red
Vsc	sticky
Vul	volcano
Vul sub	submarine volcano
X	schist
Z	azimuth (bearing)
Zero hidrografico (plano de reducao de sondas), ZH	chart datum (datum for sounding reduction)
Zo	elevation of MSL above chart datum
Zv	true bearing

ROMANIAN CHARTING TERMS

Br, brat, bratu, brutal	branch, arm
C, cap, capu, capul	cape
I, insula	island
L, lac, lacu, lacul	lake
O, ostrov, ostrovu, ostrovul	river island

RUSSIAN CHARTING TERMS

Banka, banki, bka, bki	bank(s)
B, bukhta	bay, inlet
G, gavan	harbor, basin

G, gora	mountain, hill
Ga, guba	bay, inlet, creek
Kam, kamen	rock
M, mys	cape
O, ostrov, ostrova	islands
Oz, ozero	lake
Pol, poluostrov	peninsula
Proliv, prv	channel, strait
R, reko	river
Z, zaliv	gulf, bay

SPANISH CHARTING TERMS

A	gritty, yellow, sand, orange, amber
Ade Bda	flagstaff, flagpole
A de la M	range (of tide)
Abr, abra	haven
ACo	sand and gravel
Ad, aduana	customhouse
Aero	aeronautical
Aeromar	marine and air navigation light
AF	sand and mud
Aqua	water tower, standpipe
AI	alternating
Alg	kelp, seaweed, seaweed grass
Alm	magazine
Alm	mussels
Alm Dep	warehouse, storehouse
Alr	about
Alt	alternating, alternating light
Am	yellow
An	narrow, orange
Anch	anchorage, bridge clearance (horizontal)
Ang, angostura	narrows
Ant	front light
Antg	ancient
Apag, apagodo, apagada	extinguished light
Aproxte	approximate
Ar	clay
Arc	clay
Arch, Archo, archipielago	archipelago
Arrf, arrecife	reef, rock (uncovers)
Arro	stream, creek
AS	signal mast
Aserr, userrado	saw mill
Astrm, Astro	astronomical
At	faint light
Aux	auxiliary light
Av, avd	avenue
Az	blue
B	bay, white, reed horn
Ba, bahia	bay
Bajo	shoal
Bal	beacon (in general), bathing establishment
Banco	bank
Bat, bateria	battery
Bca	mouth
Bco	bank
Bd, bdo	soft
Bijmar	low water
BM	low water
Bo, boca	shoal
Br, braza	fathom
Bulevar	boulevard
Bzo	arm (of the sea), loch, lough, lake
C	cape, small, fog bell, shells, every, shingle, post office, quarter, quadrature
Ca	mountain range, shells, calcareous, house
Cable	cable length
Cabo	cape

V Abbreviations of principal foreign terms, (Glossary)

Cada	every	E Salv	lifesaving station
Cal, caleta	inlet, tufa	Esc	scorae, school
Calle	street	E S Horaria	time signal station
Cam Send Hlla	track, footpath, trail	Esp	sponge
Can, canal	channel, sound, canal, fog gun	Esq	schist
Canal	dredged channel	Est	estuary
Carbon	cinders	Estabdo, establecide	established
Carta	chart	Este	east
Cas, castillo	castle	Esto	stadium
Casa	house	Estr	strait
Cat	cathedral	Event	eventual
Cbl	cable length	Exp, Exper	experimental
Cc	shells	Expl, Explos, Explosivo, Expvo	explosive
Cd	new candle	Ext, exterior	outer
Ce	summit		
Cerro	hill	F	fixed light, mud, muddy, fine
Cha	chimney	F D, Fd	fixed and flashing light, fjord
Cima	summit	F Des	fixed and flashing
Cisterna	cistern	F Gp D	fixed and group flashing
Cj	gravel	F Gr D	fixed and group flashing
Cjo	farm	Fabca	factory
Cl	light (quality of bottom), coral	FC	railway
Claro	light (quality of bottom)	Fca	factory
CN	post office	Fdo	ground, fjord
Co	gravel, hill	Fdo So	foul ground, foul bottom
Col, colina	hill	Fm	fathom
Comp, agj	compass adjustment beacon	Fo	lighthouse, light
Con	with	Fond	anchorage
Consp, conspicuo	conspicuous	Fondo Aero	anchorage for seaplanes
Cord	range	Fondo Prohdo	anchorage prohibited
Corr	correction	Fondo sucio	foul ground, foul bottom
Corto	small	Freu	sound
Cr	coral	Frontispicio, Fronton	gable
Cra	mountain, range	Fte	fort
Cre	summit		
Crec	flood	G	phase lag, gray, coarse, revolving or rotating light, pebbles
Cruz	calvary, cross	Gde	great
Ct	quick flashing light	Gj	flinty
Cte	stream (current)	Gja	farm
Ctl	int. quick flashing light	Gl	glacial, globigerina
Cto	convent, quarter, quadrature	Go	gulf, shingle
CIR	continuous very quick flashing light	Gob, gobo	government house
Cu	quartz	Gong, Gongo, gong de niebla	fog gong
Cubo, cubierto	covers	Gp	group
D	doubtful, delta, flash, flashing light, hard, diaphone	Gp Ct	group quick flashing light
Darna	dock	Gp D	group-flashing light
De	drydock, floating dock	Gp Oc	group occulting light
Demora, demarcacion	bearing	Gp Rp	group very quick flashing light
Des	flashing, landing place	Gr	group, gray, large, gravel, shingle, chalk, Greenwich
Descol	discolored, discolored water	Grd	great, large
Descubo, descubierto	uncovers	Gr D	group flashing light
Desemb	landing place	Gr Dc	composite group flashing light
Dest, Desto	decayed, destroyed	Gr Des	group flashing light
Diad	diaphone	Gris	gray
DL	riprap surrounding light	Gr Oc	group occulting light
Dm	city or town (small scale)	Gru	coarse
Do	reported	Gs	coarse
Dta	delta		
E	east, sponge, explosive fog signal, station, eclipse	H	hour, height, altitude, elevation, bridge clearance (vertical)
Ea	farm	Hlla	track, footpath, trail
E B Salv	lifeboat station	Hor, hort	horizontal light
Ec	scorae	I	island, islet
E de I P	mean establishment of the port	Ig, Igla	church
Elec, Elect	electric	Inf, inferior	lower, lower light
Enf	in line with	Ins, instituto	institute
Ens, Ensa	bay, creek, cove	Int, Interior	inner
Ent, entr	entrance	Ip	stiff
Entrante	flood	IQ	interrupted quick flashing
Ep	sponge	Irreg.	irregular light
Equin, equinocial	equinoctial	Is	island
ES	signal station	Iso, Isof	isophase light

V Abbreviations of principal foreign terms, (Glossary)

Ite (Ites)	islet (islets)	Ord, ordinario	ordinary
IUQ	int. ultra quick flashing light	Os	oysters
IVQ	int. very quick flashing light	Osc	submarine oscillator, dark, obscured light
Kn	knot, knots	Ost	oysters
L	light, large, ooze, lake, pond, loch, lough	O sub	submarine oscillator
La	lagoon	P	peak, brown, stones, position, shoal sounding on isolated rock
Loz, lazaret	lazaret	Pal	wreck with only masts visible (above sounding datum)
Lum	lighted, luminous	Part	private, privately
Lv	lava	Paso	passage, pass
M	meter, minute (of time), nautical mile, speckled	Pblo	village
Ma	mountain	Pc	peak
Mad, madreporda	madrepore	Pd	pebbles
Mag	magnetic	P de O	observation spot
Mal	jetty (partly below MHW)	P de R	point of reference
Mco	magnetic	Penl, penla	peninsula
Md	middle, madrepores	Peq	little
M de S	mean low-water springs	Pet	oil tank
M de Sic	spring tide	Pg	sticky
Mdo	speckled	Pie	foot, feet
Me, medio	middle, mole	Pil, pilares	pilar
Mejillon	mussels	Pl de R	chart datum (datum for sounding reduction)
Mj	mussels	Plmar	high water
MI	ground (shells)	Ply	beach
Mile	mole	P M	high water
Mma	swamp	Pm M de S	mean high-water springs
Mna	mountain, mount	PnFo	light vessel, lightship
Mo	morse code light, head, headland	Po	passage, pass
Mol	windmill	Pob	village
Mon	monument	Pod, podrido	rotten
Mons, monasterio	monastery	Pol, Polv, polvorin	powder magazine
Mr	marl	Posn, posicion	position
Ms de C	neap tide	Pq	small
Ms de S	spring tide	Pr	brown
Mta	tableland (plateau)	Prof men	lesser depth possible
Mte, Mtina	mountain, mount	Prof min	least depth in narrow channels
Mte sub	seamount	Proh, prohdo	prohibited
Mto	monument	Prom, promo	promontory, prominent
Municipio	town hall	Prov, Provo	provisional light
Muralla, muro	wall	Proy, proyecto, proyo	projected
Mv	bearing	Pta	point
N	north, knot, nautophone, black, nautical mile	Pte	bridge
Naut, Nautof, nautofono	nautophone	Pto	harbor, port
Nav	navigable	Publ, publicacion	publication
N de R	bench mark	Pz	pumice
Nj, rja	orange	Q	stream, quick flashing light
N M	mean tide level	Qb	broken
NMM	mean sea level	Queb, quebrada	stream
No	number	Quebrado	broken
Noray	dolphin	R	red, radio fog-signal station, radio telegraph station, rock, river, qtg radio station
Not	notable	Ra	isolated rock, radar station, radar guided track
NRS	chart datum (datum for sounding reduction)	Rada	road, roadstead
Ns	knots	Ram	ramark
Nv, nvo	new	RC	circular radiobeacon
O	dark, submarine oscillator	Rcso	rocky
Obs, obsn	obstruction	RD, Rd	directional radiobeacon, radiolaria
Obso	observatory	Rda	road, roadstead
Obston, obstr	obstruction	Rdf	radio broadcasting station
Obsv	observatory	Ref	hut
Oc	occultation, occulting light	Regla	standard
Ocas, Ocasl	occasional, occasional light	RF, RFo	Radio beacon
Occ	occultation, occulting light	RG	radio direction finding station
Occidental	western	Rga	ridge
Of	office	Rio	creek
Of'tde pto	harbormaster's office	Rs	rocks, ruins
Oficina	office	Rso	rocky
Of Tel	telegraph office		

V Abbreviations of principal foreign terms, (Glossary)

RT	radio telephone station
Ru	dumping ground
R Telem	distance finding station
Rui, ruinas	ruins
RW	rotating loop radiobeacon
S	station, south, fog signal, second (of time), signal, syzygy, saint, sector
S A S	submarine fog bell (mechanical)
S A So	submarine fog bell (action of waves)
S C Bal	cardinal marking system
S G	unwatched light
S Mt	seamount
S S	signal station
Sa	mountain range
SD	doubtful sounding, lesser depth possible
Seg	second (of time)
Sem	semaphore
Senal	signal
Sic	syzygy
Sil, silb, silbato	fog whistle
Sir, sirena	fog siren
Sn	saint
So	low-water datum, sound
Son	morse code fog signal
SSN	submarine fog signal
Sta, sto	saint
Subrn	submarine
sumdo, sumg, sumgd	submerged
Sup	higher, upper light
Supdo, Suprim	discontinued
T	temporary, temporary light, ton, tufo
Tba	tomb
Te	tower
Te bal	tower beacon
Tejar	brick kiln
Tel, telegrafo	telegraph
Tem	temporary, temporary light
Tfno	telephone, mooring buoy with telegraphic communications
Tn	ton
Tri, Triang, triangulacion	triangulation
Trompa, Trompeta de niebla	fog trumpet
TV	television mast, television tower
U	unit of height, ultra quick flashing light
UQ	ultra quick flashing light
V	true, green, valley, volcano, ebb, lookout tower
Valle	valley
Var	variation
Var an, Variacion anua	annual change
VC	see chart
Vc	volcanic
V de T	triangulation point (station)
Ve	valley
Verd	true
Vert	vertical lights
Verto, Vertedero de draga	spoil area
Vi	violet
Vigia	lookout station, watch tower
Vis	visible (range)
Vj	old
Vo	true
Vol, volcan	volcano
VP	see plan
VQ	very quick flashing light
Vt	streaky
Zo	elevation of mean sea level above chart sounding datum, chart datum (datum for sounding reduction)

Zona C Subm	submarine cable area
Zona Can Subm	submarine pipeline area

SWEDISH CHARTING TERMS

B	bay, bight
Berg, berget, bg, bgt	mountain
Bk	bank
Bukt	bay, bight
Fj, fjord	fjord
Grd, grund	shoal
Hamm, hamnen	harbor
Hd	headland
Hm	islet
Hn	harbor
Holm, holmen	islet
Huvud	headland
K, kap	cape
N, nord, norr, norra	north, northern
Sk, skar, skaret	rock above water

THAI CHARTING TERMS

Kh, khao	hill, mountain
Laem, Im	cape, point
Mae nam, MN	river

TURKISH CHARTING TERMS

Ad, ada, adacik, adasi	island, islet
Br, bruna, burun	point, cape
Ca, cay, cayi	stream, river
Da, dag, dagi	mountain
De, dere, deresi	valley, stream
Li, liman, limani	harbor
Te, tepe, tepesi	hill, peak

YUGOSLAV CHARTING TERMS

Br, brda, brdo	mountain(s)
Gr, greben, grebeni	rock, reef, cliff, ridge
Hr, hrid, hridi	rock
L, luka	harbor, port
O	islet(s)
O, otoci	island(s)
Otocic, otocici	islet(s)
Otok	island(s)
Pi, plicina	shoal
Pr, prolaz	passage
Sk, skolj, skoljic	island, reef
U, uvala, uvalica	inlet
Z, zaliv	gulf, bay

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A

aband	Abandoned	F 37	cd	Candela	E 12b
ABAND LT HO	Abandoned lighthouse	If	CFR	Code of Federal Regulations	Fx
abt	About	F 17	C G	Coast Guard	J 3, Ja
AERO	Aeronautical	F 22; K 4	ch	Chocolate	S 65
AERO R Bn	Aeronautical radiobeacon	M 16	Ch	Church	I 8
AERO R Rge	Aeronautical radio range	Md	Chan	Channel	B 10
alt	Altitude	E 18	Chec	Checkered (buoy)	L 33
Al, Alt	Alternating (light)	K 26	CHY	Chimney	I 44
Am	Amber	K 67a; L 48a	Cir	Cirripedia	S 38
anc	Ancient	F 9	Ck	Chalk	S 12
Anch	Anchorage	B 15; G 1, 2	Cl	Clay	S 6
Anch prohib	Anchorage prohibited	G 12	CL	Clearance	Fd
Ant	Antenna	Ma	cm	Centimeter	E 4b
approx	Approximate	F 34	Cn	Cinders	S 21
Apprs	Approaches	Bg	Co	Company	II
Apt	Apartment	Ij	Co Hd	Coral	S 14
Arch	Archipelago	B 20	COLREGS	Coral head	Sa
Art	Articulated light	Lg		International Regulations	
Astro	Astronomical	D 9		for Preventing Collisions	
AUTH	Authorized	Fc		at Sea, 1972	
Aux	Auxiliary (light)	K 51	concr	Concrete	Fy; Pi
Ave	Avenue	I 26a	conspic	Conspicuous	Ff
			C of E	Corps of Engineers	F 12
			cor	Corner	Df
			Corp	Corporation	Fe

B

B	Bay	B 2	Cov	Covers	O 33
B	Bayou	Ba	corr	Correction	E 17
B	Beacon	L 54	cps, c/s	Cycles per second	Ef
B, b, bk	Black	L 42, S 57	Cr	Creek	B 5
Bdy Mon	Boundary monument	D 14	CRD	Columbia River Datum	Tc
BELL	Fog Bell	N 14	crs	Coarse	S 40
bet	Between	Fi	Cswy	Causeway	H 3f
B Hbr	Boat Harbor	G 33	Ct Ho	Courthouse	I 64
Bk	Bank	O 21	CUP	Cupola	I 36
Bkhd	Bulkhead		Cus Ho	Customhouse	G 29
Bkw	Breakwater	G 6			
Bl	Blast	Fw	D		
Bld, Blds	Boulder, Boulders	B 32; S 11a	D	Doubtful	O 45
Bldg	Building	I 66	D, Destr	Destroyed	F 14; Kg
Blvd	Boulevard	I 26b	dec	Decayed	S 52
BM	Bench Mark	D 5	deg	Degrees	U 27
Bn	Beacon (in general)	L 52, 53	dev	Deviation	U 28
BR	Bridge	H 14	Diag	Diagonal bands	L 33a
Br, br	Brown	L 46; S 64	D F S	Distance finding station	M 15
brg	Bearing	U 21	Di	Diatoms	S 34
brk	Broken	S 47	DIA	Diaphone	N 9
Bu, bu	Blue	K 63; L 48; S 59	Discol	Discolored	O 36
BWHB	Black and white horizontal bands	L 27	discontd	Discontinued	F 25
BWVS	Black and white vertical stripes	L 14, 14a	dist	Distant	F 16
			dk	Dark	S 68
			dm	Decimeter	E 4a
			Dol	Dolphin	G 21

C

C	Can, Cylindrical (buoy)	L 5	DRDG RGE	Dredging Range	
C	Cape	B 22	DW	Deep Water	Fn
C	Cove	B 5a	E		
Ca	Calcareous	S 12a	E	East, Eastern	U 2, 10
Cap	Capitol	Ik	Ed	Edition	E 16
Cas	Castle	I 4	ED	Existence doubtful	O 43
Cath	Cathedral	I 8a	elec	Electric	F 29
Cb	Cobbles	Sf	elev	Elevation	E 19
cbl	Cable length	E 10	ELEV	Elevator	I 37

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Elev	Elevation, Elevated	Ie	Hbr Mr	Harbor Master	G 28
E'ly	Easterly	Fs	Hd	Head, Headland	B 24
Entr	Entrance	B 11	HECP	Harbor entrance control post	Jd
E Int	Isophase light (equal interval)	K 23a	Hk	Hulk	G 45
Est	Estuary	B 12	HHW	Higher high water	T la
estab	Established	F 28	Hn	Haven	B 16a; G 4
Exper	Experimental (light)	Kj	Hor CL	Horizontal lights	K 81
exper	Experimental	F 24	HORN	Horizontal clearance	H 18b
explos	Explosive	F 27		Fog trumpet, Foghorn, Reed horn, Typhon	N 12, 13, 13a, 16, Na
Explos Anch	Explosive Anchorage (buoy)	L 25	Hosp	Hospital	I 32
Exting	Extinguished (light)	K 74	hr, h	Hour	E 1
extr	Extreme	F 40	hrd	Hard	S 42
F					
F	Fixed (light)	K 21	HW	High water	T 1
Facty	Factory	I 47	Hy	Highway	H 1
Fd	Fjord	B 3	Hz	Hertz	Ec
F Fl	Fixed and flashing (light)	K 29	I		
F Gp Fl	Fixed and group flashing (light)	K 30	I	Island	B 18
Fl	Flash, Flashing (light)	K 23, 45	IQ, I Qk, Int Qk	Interrupted quick	K 25
fl	Flood	Fg; T 31	in, ins	Inch, Inches	E 6
fly	Flinty	S 53	In	Inlet	B 6
fm	Fathom	E 9	Inst	Institute	I 61
fne	Fine	S 39	Irreg	Irregular	K 71
Fog Det Lt	Fog detector light	K 68a; Nb	ISLW	Indian spring low water	T 10
Fog Sig	Fog signal station	N 1	Is	Islands	Bi
FP	Flagpole	J 19	Iso	Isophaser	K 23a
Fr	Foraminifera	S 32	It	Islet	B 19
FS	Flagstaff	J 19	IUQ	Interrupted Ultra Quick	Kc
Fsh stks	Fishing stakes	G 14	IVQ	Interrupted Very Quick	Kc
ft	Foot, Feet	E 7	IWW	Intracoastal Waterway	Fz
Ft	Fort	I 19			
F TR	Flag tower	J 19a	K		
Fu	Fucus	S 38a	K	Kelp	S 27
Fy	Ferry	H 19	kc	Kilocycle	Eg
G					
G	Gulf	B 1	kHz	Kilohertz	Ed
G	Gravel	S 7	km	Kilometer	E 5
G, Gn, gn	Green	K 64; L 20, 20a, 45; S 60	kn	Knots	E 12; T 24
GAB	Gable	I 72	L		
GCLWD	Gulf Coast Low Water Datum	Td	L	Loch, Lough, Lake	B 4
GI	Globigerina	S 33	La	Lava	S 17
glac	Glacial	S 54	Lag	Lagoon	Bf; C 16
GONG	Fog gong	N 17	LANBY	Large Automatic Navigation Buoy	L 71
Govt Ho	Government House	I 30	lat	Latitude	E 13
Gp	Group	K 47	LD	Least Depth	Od
Gp Fl	Group flashing	K 28	Ldg	Landing, Landing place	B 33; G 16
Gp Occ	Group occulting	K 27	Ldg Lt	Leading light	K 11
Grd, grd	Ground	S 1, 47a	Le	Ledge	O 24
Grs	Grass	S 28	LFI	Long flashing (light)	Kb
gt	Great	F 1	Lit	Little	F 2
gty	Gritty	S 51	LLW	Lower Low Water	T 2a
GUN	Explosive fog signal	N 3	LNM	Local Notice to Mariners	Fa
GUN	Fog gun	N 10	Lndg	Landing place	B 33; G 16
Gy, gy	Gray	L 47; S 66	long	Longitude	E 14
H					
HB	Horizontal bands or stripes	L 31	LOOK TR	Lookout station, Watch tower	J 4
Hbr	Harbor	B 16; G 3	LOS	Pilot Station	J 8
			Irg	Large	F 3; S 45
			LS S	Lifesaving station	J 6

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Lt	Light	K 2	NW	Northwest	U 8
lt	Light	S 67	NWS	National Weather Service	
Ltd	Limited	li		Signal Station	Jb
Lt Ho	Lighthouse	K 3			
LW	Low water	T 2	O		
LWD	Low water datum	Ta	OBSC	Obscured (light)	K 68
			Obs Spot	Observation spot	D 4
			Obstr	Obstruction	O 27
			Obsy	Observatory	J 21
			Oc, Occ	Occulting (light), Occultation	K 22, 46
M		E 11; Kd	Oc, Occ	Intermittent (light)	K 48
M, Mi	Nautical mile	S 3	Occas	Occasional (light)	F 39; K 70
M	Mud, Muddy	Sg	ODAS	Oceanographic Data	
m	Medium	E 4, d, e		Aquisition System	L 73
m	Meter	E 4d		Office	J 22
m ²	Square meter	E 4e	PWR CAB	Overhead power cable	H 4
m ³	Cubic meter		Oys	Oysters, Oyster bed	S 24; G 15a
m, min	Minute (of time)	E 2; Ke	Oz	Ooze	S 4
Ma	Marsh	Bj.			
Ma	Mattes	S 38b	Off		
mag	Magnetic	U 23	Or, or	Orange	K 65; L 48b; S 62
Magz	Magazine	I 34	OVHD		
maintd	Maintained	F 36			
max	Maximum	Fp			
Mc	Megacycle	Eh	P		
Mds	Madrepores	S 15	P	Pebbles	S 9
Mg	Mangrove	Bk	P	Pillar (buoy)	L 8a
MHHW	Mean higher high water	T 8b	P	Pond	Bb
MHW	Mean high water	T 7a	P	Port	B 17; G 5
MHWN	Mean high-water neaps	T 8a	PA	Position approximate	O 41
MHWS	Mean high-water springs	T 8	Pag	Pagoda	I 14
MHz	Megahertz	Ee	Pass	Passage, Pass	B 9
MICRO TR	Microwave tower	Mc	Pav	Pavilion	I 67
mid	Middle	F 7	PD	Position doubtful	O 42
min	minimum	Fo	Pen	Peninsula	B 21
Mkr	Marker	Lc	PIL STA	Pilot station	J 8
MI	Marl	S 5	Pk	Peak	B 29
MLLW	Mean lower low water	T 9b	Pm	Pumice	S 18
MLW	Mean low water	T 8c	Po	Polyzoa	S 37
MLWN	Mean low-water neaps	T 9a	P O	Post Office	I 29
MLWS	Mean low-water springs	T 9	P, Pos	Position	O 44
mm	Millimeter	E 4c	priv	Private, Privately	F 30
Mn	Manganese	S 22	Priv maintd	Privately maintained	K 17; L 29
Mo	Morse code light, Fog signal	K 30a; Nc	Prohib	Prohibited	F 26
mod	Moderate	Fh	prom	Prominent	F 31
MON	Monument	I 35	Prom	Promontory	B 23
Ms	Mussels	S 25	Prov	Provisional (light)	K 72
μsec, μs	Microsecond (one millionth)	Eb	Pt	Point	B 25
MSL	Mean sea level	T 4	Pt	Pteropods	S 36
Mt	Mountain, Mount	B 26	pub	Publication	E 15
Mth	Mouth	B 13	P F	Pump-out facilities	Gd
MTL	Mean tide level	T 3	PWI	Potable water intake	
My	Bearing	U 21			
			Q		
N			Quar	Quarantine	G 26
N	North, Northern	U 1, 9	Q, Qk Fl	Quick flashing (light)	K 24
N	Nun, Conical (buoy)	L 6	Qz	Quartz	S 13
N M, N Mi	Nautical mile	E 11			
NAUTO	Nautophone	N 8	R		
NE	Northeast	U 5	R	Red	K 66; L 15, 43
N'ly	Northerly	Fq	R	River	Bd
NM	Notice to Mariners	F 42	R	Rocks	B 35
No	Number	E 23	Ra	Radar station	M 11
Np	Neap tide	T 7	Racon	Radar responder beacon	M 12

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Ra (conspic)	Radar conspicuous object	M 14	Shl	Shoal	O 22
RA DOME	Radar dome	Mh	Si	Silt	Se
Ra Ref	Radar reflector	Lf; M 13	Sig Sta	Signal station	J 9
Ra Sur	Radio responder beacon	M 12	SIREN	Fog siren	N 11
RBHB	Red and black horizontal bands	L 17, 18, 19, 20, 20a	Sk	Stroke, strike	Fu
R	Red beacon	L 52	S-L Fl	Short-long flashing (light)	K 28a
Bn			Slu	Slough	Be; C 18
R Bn	Radio beacon	M 3, 4, 16	S'ly	Southerly	Fr
RC	Circular radio beacon	M 4	sml	Small	F 4; S 44
Rd	Radiolaria	S 35	Sn	Shingle	S 8
rd	Red	S 63	Sp	Spring tide	T 6
Rd	Road, Roadstead	B 14; H 1	SP	Spherical (buoy)	L 7
RD	Directional Radio beacon, Radio range	M 5	Spg	Sponge	S 26
RDF, Ro DF	Radio direction finding station	M 7	Spi	Spicules	S 31
			S'PIPE	Standpipe	I 45
			spk	Speckled	S 50
REF	Reflector	K 10; L 64	S Sig Sta	Storm signal station	J 11
Rep	Reported	O 35	St	Saint	F 11
Restr	Restricted	Fv	St	Street	I 26
Rf	Reef	O 23	Sta	Stones	S 10
RG	Radio direction finding station	M 7	std	Station	J 1, 2
Rge	Range	B 27	stf	Standard	F 32
RGE	Range	Ki	Stg	Stiff	S 43
Rk	Rock	B 35	stk	Sea-tangle	S 29
Rk, rky	Rock, Rocky	S 11	St M, St Mi	Sticky	S 46
Rky	Rocky	Bh	Str	Statute mile	Ea
R MAST	Radio mast	M 9	str	Strait	B 7
Ro Bn	Radio beacon	M 3	sub	Stream	Bc; T 17
Rot	Rotating (light), Revolving	K 31	SUB-BELL	Streaky	S 49
RR	Railroad	H 3	Subm, subm	Submarine	F 20
R RELAY			Subm, subm	Submarine fog bell	N 5, 6
MAST	Radio relay mast	Mb	Subm Ruins	Submerged	F 33; O 30
R Sta	Radio telegraph station, QTG Radio station	M 1, 10a	SUB-OSC	Submerged ruins	Gd
RT	Radio telephone station	M 2	Sub Vol	Submarine oscillator	N 7
rt	Rotten	S 48	Subm W	Submarine volcano	O 8
R TR	Radio tower	M 9	SW	Submerged Well	Ob
Ru	Ruins	I 40	sw	Southwest	U 7
RW	Rotating loop radiobeacon	M 6	T	Swamp	Bl
RW	Red and white beacon	L 52	t	Tonne	E 12a
Bn			T	Ton	Ei
RWVS	Red and white vertical stripe	L 14, 14a	T	Telephone	I 70; L 22c
Ry	Railway	H 3	T	True	U 22
			T	Tufa	S 19
S			TB	Temporary buoy	L 30
S	Sand	S 2	Tel	Telegraph	I 27; L 22b
S	South, Southern	U 3, 11	Telem Ant	Telemetry antenna	Ma
S	Spar (buoy)	L 8	Tel Off	Telegraph office	I 28
Sc	Scoriae	S 20	Temp	Temporary (light)	F 38; K 73
Sch	Schist	S 13a	ten	Tenacious	S 55
Sch	School	I 65	Thoro	Thoroughfare	B 9
Sd	Sound	B 8	Tk	Tank	I 53
SD	Sounding doubtful	Q 1	TR, Tr	Tower	I 41; L 63; Ld; M 9a
SE	Southeast	U 6	Tri	Triangulation	D 10
sec, s	Second (time; geo, pos.)	E 3; Kf	T.T.	Treetop	C 11
SEC	Sector	K 49	TV TR	Television tower (mast)	M 9a
Sem	Semaphore	J 10	U		
S Fl	Short flashing (light)	K 25a	uhf	Ultra high frequency	Mi
sft	Soft	S 41	Uncov	Uncovers; Dries	O 2, 32, 34
Sh	Shells	S 23	Univ	University	Ih

Index of Abbreviations

unverd	Unverified	Fb
unev	Uneven	S 71
μ sec. μ s	Microsecond (one millinoth)	Eb
UQ	Continuous Ultra Quick	Kc

V

var	Variation	U 24
vard	Varied	S 70
VB	Vertical beam	Kh
vel	Velocity	T 23
Vert	Vertical (lights)	K 80
VERT CL	Vertical clearance	H 18a
vhf	Very high frequency	Mi
Vi, vi	Violet	K 61; S 58
View X	View point	D 6
Vil	Village	I 3
Vol	Volcanic	S 16
Vol Ash	Volcanic ash	Sb
VQ, V Qk Fl	Very quick flashing (light)	Kc
VS	Vertical stripes	L 32

W

W	West, Western	U 4, 12
W, wh	White	K 67; L 41; S 56
W	White beacon	L 52
Bn	Seaweed	S 28
Wd	Wharf	G 18
WHIS	Fog whistle	N 15
Wk	Wreck	O 15, 15a, 28
Wks	Wrecks, Wreckage	O 29
W Or	White and orange	Le
W'ly	Westerly	Ft

Y

Y, yl	Yellow	L 24, 44; S 61
yd, yds	Yard(s)	E 8

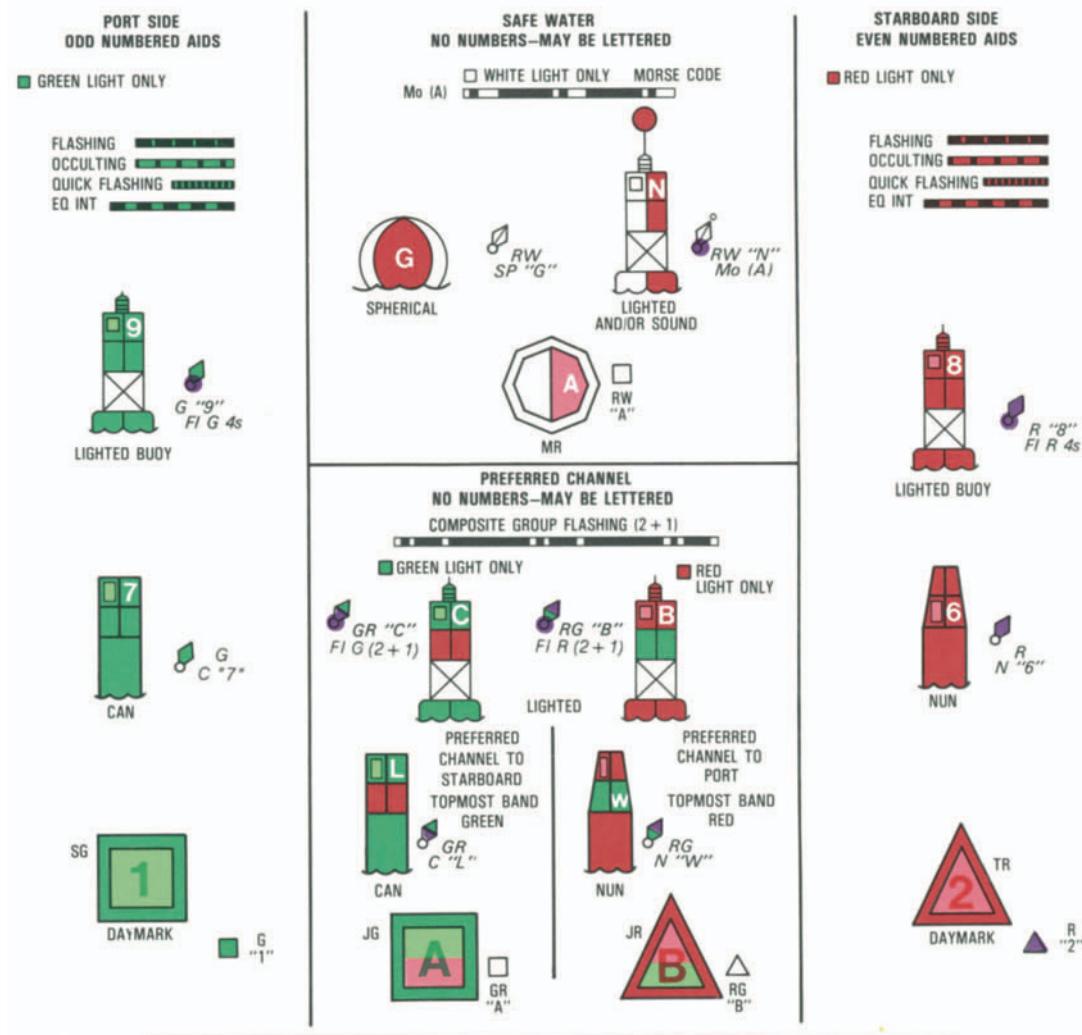
1st	First	Fj
2nd, 2d	Second	Fk
3rd, 3d	Third	Fl
4th	Fourth	Fm

°	Degree	E 20
'	Minute (of arc)	E 21
"	Second (of arc)	E 22

AIDS TO NAVIGATION
IN
UNITED STATES WATERS

MODIFIED U.S. AID SYSTEM

LATERAL AIDS AS SEEN ENTERING FROM SEAWARD



NOTE: WHEN USED ON THE INTRACOASTAL WATERWAY, THESE AIDS ARE ALSO EQUIPPED WITH SPECIAL YELLOW STRIPS, TRIANGLES, OR SQUARES. WHEN USED ON THE WESTERN RIVERS (MISSISSIPPI RIVER SYSTEM), THESE AIDS ARE NOT NUMBERED. (MISSISSIPPI RIVER SYSTEM ABOVE BATON ROUGE AND ALABAMA RIVERS)



AIDS TO NAVIGATION ON NAVIGABLE WATERS except Western Rivers and Intracoastal Waterway

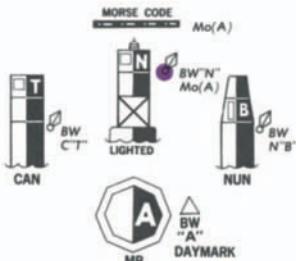
LATERAL SYSTEM AS SEEN ENTERING FROM SEAWARD

PORT SIDE
ODD NUMBERED AIDS
■ GREEN OR □ WHITE LIGHTS

FIXED —————
FLASHING ——————
OCCULTING —————
QUICK FLASHING ——————
EQ INT —————

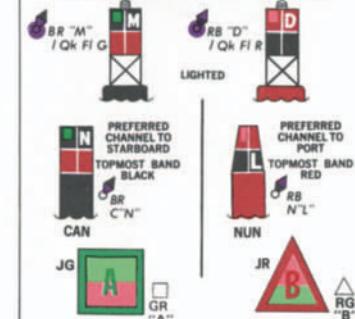


MID CHANNEL
NO NUMBERS—MAY BE LETTERED
□ WHITE LIGHT ONLY



JUNCTION
MARK JUNCTIONS AND OBSTRUCTIONS
NO NUMBERS—MAY BE LETTERED
INTERRUPTED QUICK FLASHING

□ WHITE OR ■ GREEN □ WHITE OR ■ RED



STARBOARD SIDE
EVEN NUMBERED AIDS
■ RED OR □ WHITE LIGHTS

FIXED —————
FLASHING ——————
OCCULTING —————
QUICK FLASHING ——————
EQ INT —————
GROUP FLASHING (2) ——————



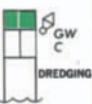
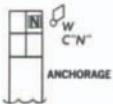
BUOYS HAVING NO LATERAL SIGNIFICANCE—ALL WATERS

SHAPE HAS NO SIGNIFICANCE
NO NUMBERS—MAY BE LETTERED

MAY BE LIGHTED
ANY COLOR LIGHT EXCEPT
RED OR GREEN



FIXED —————
FLASHING ——————
OCCULTING —————

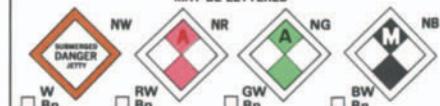


UNLIGHTED



DAYMARKS HAVING NO LATERAL SIGNIFICANCE

MAY BE LETTERED





AIDS TO NAVIGATION ON THE INTRACOASTAL WATERWAY

AS SEEN ENTERING FROM NORTH AND EAST—PROCEEDING TO SOUTH AND WEST

PORT SIDE ODD NUMBERED AIDS ■ GREEN OR □ WHITE LIGHTS FIXED — OCCULTING ————— FLASHING ——— QUICK FLASHING —————— EQ INT ——	JUNCTION MARK JUNCTIONS AND OBSTRUCTIONS NO NUMBERS—MAY BE LETTERED INTERRUPTED QUICK FLASHING □ WHITE OR ■ GREEN LIGHTS □ WHITE OR ■ RED LIGHTS TO STARBOARD TOPMOST BAND BLACK CAN TO PORT TOPMOST BAND RED NUN PREFERRED CHANNEL A CAN A B JG-I GR "A" C JR-I RG "B" D MB-I BW "B" E DAYMARK F CAN G LIGHTED H NUN I MID CHANNEL MORSE CODE NO NUMBERS—MAY BE LETTERED J CWHITE LIGHT ONLY K BW "A" L BW "B" M BW "C" N BW "D" O DAYMARK P LIGHTED Q NUN R DUAL PURPOSE MARKING USED WHERE THE ICW AND OTHER WATERWAYS COINCIDE SG-SY 5 G "5" DUAL PURPOSE DAYMARKS 5 C "5" DUAL PURPOSE BUOYS TR-SY 5 R "6" JG-SY A GR "A" JR-SY D RG "D" SG-TY 5 G "5" DUAL PURPOSE DAYMARKS 5 C "5" DUAL PURPOSE BUOYS TR-TY 6 R "6" JG-TY C GR "C" JR-TY B RG "B" When following the ICW from New Jersey through Texas, a triangle should be kept to your starboard hand and a square should be kept to your port hand, regardless of the color of the aid on which they appear. IM 7500-01-072-1550	STARBOARD SIDE EVEN NUMBERED AIDS ■ RED OR □ WHITE LIGHTS FIXED — OCCULTING ————— FLASHING ——— QUICK FLASHING —————— EQ INT —— GROUP FLASHING (2) ——
LIGHTED BUOY		LIGHTED BUOY
CAN		NUN
DAYMARKS		TR-I
SG-SY		DUAL PURPOSE DAYMARKS
DUAL PURPOSE DAYMARKS		DUAL PURPOSE DAYMARKS
DUAL PURPOSE BUOYS		DUAL PURPOSE BUOYS
TR-SY		SG-TY
JG-SY		JG-TY
JR-SY		JR-TY



AIDS TO NAVIGATION ON WESTERN RIVERS (MISSISSIPPI RIVER SYSTEM)

AS SEEN ENTERING FROM SEAWARD

PORT SIDE

GREEN OR WHITE LIGHTS
FLASHING



LIGHTED BUOY



CAN



PASSING DAYMARK



CROSSING DAYMARK



176.9

MILE BOARD

JUNCTION

MARINE JUNCTIONS AND OBSTRUCTIONS
INTERRUPTED QUICK FLASHING



PREFERRED CHANNEL
TO STARBOARD
TOPMOST BAND BLACK

PREFERRED CHANNEL
TO PORT
TOPMOST BAND RED



LIGHTED



WHITE OR
RED LIGHTS



CAN



NUN



JG



JR

STARBOARD SIDE

RED OR WHITE LIGHTS
GROUP FLASHING (2)



LIGHTED BUOY



NUN



PASSING DAYMARK



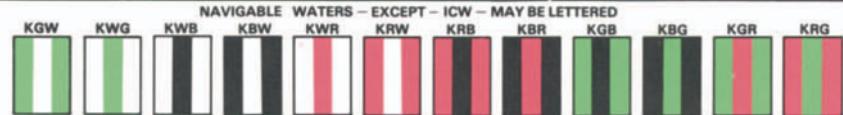
CROSSING DAYMARK



123.5

MILE BOARD

RANGE DAYMARKS AS FOUND ON



NAVIGABLE WATERS – EXCEPT – ICW – MAY BE LETTERED



INTRACOASTAL WATERWAY – MAY BE LETTERED

IN 150-14 (97-151)



UNIFORM STATE WATERWAY MARKING SYSTEM

STATE WATERS AND DESIGNATED STATE WATERS FOR PRIVATE AIDS TO NAVIGATION

REGULATORY MARKERS



BOAT EXCLUSION AREA



ROCK

DANGER



SLOW

CONTROLLED AREA

EXPLANATION MAY BE PLACED OUTSIDE THE CROSSED DIAMOND SHAPE, SUCH AS DAM, RAPIDS, SWIM AREA, ETC.

THE NATURE OF DANGER MAY BE INDICATED INSIDE THE DIAMOND SHAPE, SUCH AS ROCK, WRECK, SHOAL, DAM, ETC.

TYPE OF CONTROL IS INDICATED IN THE CIRCLE, SUCH AS SLOW, NO WAKE, ANCHORING, ETC.



FOR DISPLAYING INFORMATION SUCH AS DIRECTIONS, DISTANCES, LOCATIONS, ETC.

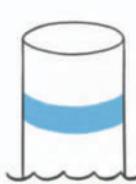
INFORMATION



BUOY USED TO DISPLAY REGULATORY MARKERS

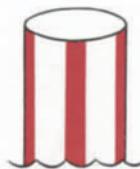


MAY SHOW WHITE LIGHT
MAY BE LETTERED



MOORING BUOY

WHITE WITH BLUE BAND
MAY SHOW WHITE REFLECTOR OR LIGHT



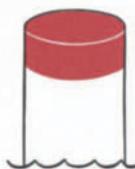
RED-STRIPED WHITE BUOY

MAY BE LETTERED
DO NOT PASS BETWEEN BUOY AND NEAREST SHORE



BLACK-TOPPED WHITE BUOY

MAY BE NUMBERED
PASS TO NORTH OR EAST OF BUOY



RED-TOPPED WHITE BUOY

MAY BE NUMBERED
PASS TO SOUTH OR WEST OF BUOY

CARDINAL SYSTEM

MAY SHOW GREEN REFLECTOR OR LIGHT

MAY SHOW RED REFLECTOR OR LIGHT



SOLID RED AND SOLID BLACK BUOYS

USUALLY FOUND IN PAIRS
PASS BETWEEN THESE BUOYS

PORT SIDE ————— LOOKING UPSTREAM ————— STARBOARD SIDE



LATERAL SYSTEM

SK 7530-01-072-5540

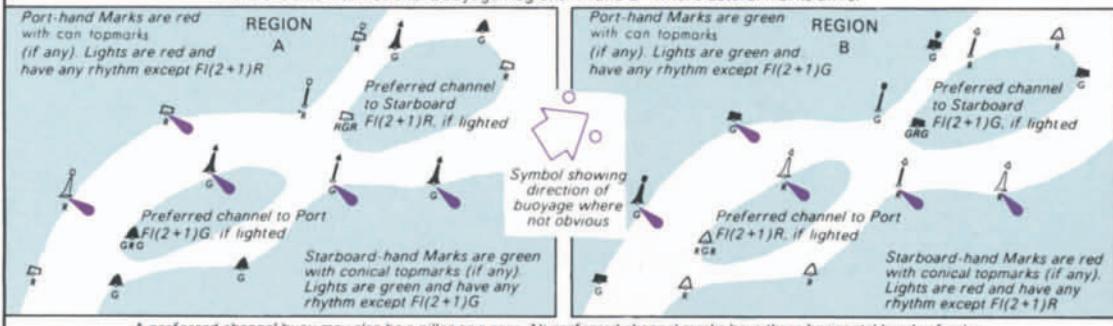
**INTERNATIONAL ASSOCIATION OF
LIGHTHOUSE AUTHORITIES (I.A.L.A.)
MARITIME BUOYAGE SYSTEM**

L 70 Buoys and Beacons IALA* Buoyage System

Where in force, the IALA System applies to all fixed and floating marks, and occasionally lighthouses, sector lights, range marks, lightships and LANBY's (large automatic navigational buoys).

The standard buoy shapes are cylindrical (can) , conical , spherical  pillar (including high focal plane) , and spar , but variations may occur, for example lightfloats . In the illustrations below, only the standard buoy shapes are used. In the case of fixed beacons (lighted or unlighted), only the shape of the topmark is of navigational significance.

Lateral Marks (used in conjunction with a conventional direction of buoyage) are generally for well-defined channels.
There are two international Buoyage Regions—A and B—where Lateral marks differ



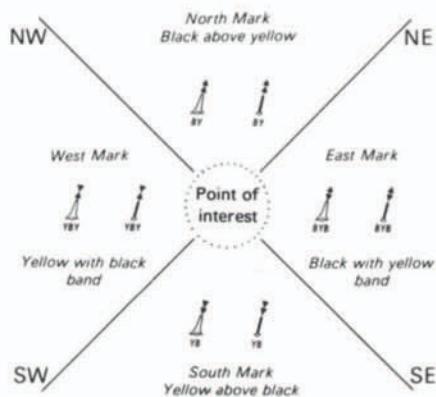
A preferred channel buoy may also be a pillar or a spar. All preferred channel marks have three horizontal bands of color

All marks other than Lateral Marks are the same in REGIONS A and B

UNLIGHTED MARKS

Cardinal Marks indicating navigable water to the named side of the marks

Topmark: 2 black cones



LIGHTED MARKS

Cardinal Marks indicating navigable water to the named side of the marks

Time (seconds)

White light

0 5 10 15

North
Mark

VQ or Q
BY



East
Mark

VQ(3)5s or Q(3)10s
BY



South
Mark

VQ(6)+LFI.10s or Q(6)+LFI.15s
BY



West
Mark

VQ(9)10s or Q(9)15s
BY



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

Isolated Danger Marks, stationed over dangers with navigable water around them.

Body: black with red band(s)

Topmark: 2 black balls



White light

Body: red and white stripes

Topmark (if any): red ball



White light

Special Marks, not primarily to assist navigation but to indicate special features.

Body (shape optional): yellow

Topmark (if any): yellow X



Yellow light

BEACONS with IALA System topmarks are charted by upright symbols, eg

Beacon towers are charted:   etc. (occasionally lighted)

RADAR REFLECTORS on buoys and beacons are not generally charted.

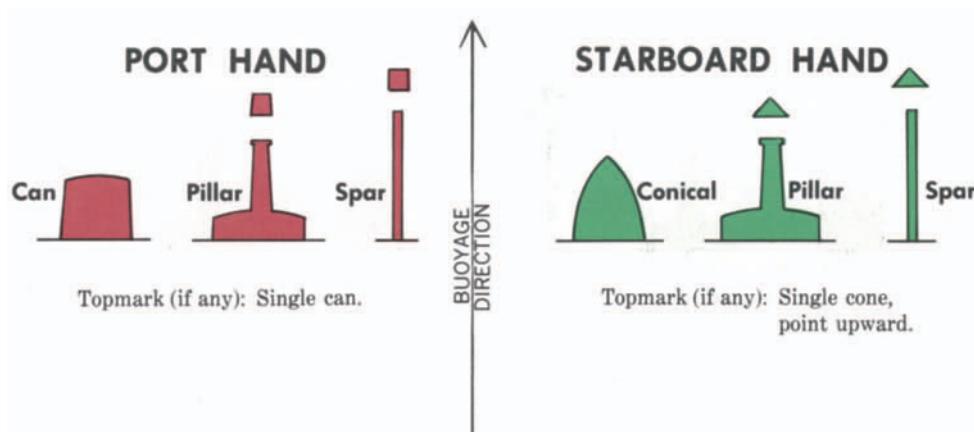
COLOR ABBREVIATIONS under symbols, especially those of spar buoys, may be omitted, or may be at variance with symbols shown above.

LIGHTFLOATS: The IALA System is not usually applied to large lightfloats (replacing manned lightships) but may be applied to smaller lightfloats.

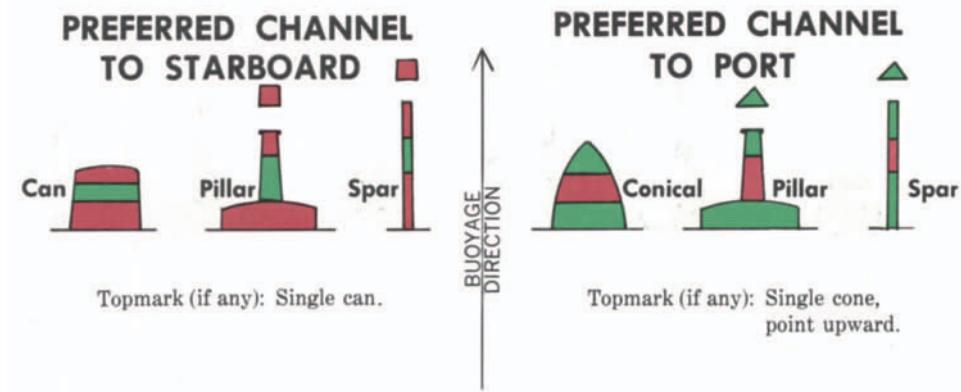
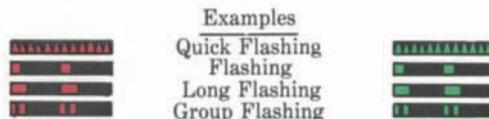
* IALA is an abbreviation of International Association of Lighthouse Authorities.

IALA MARITIME BUOYAGE SYSTEM

LATERAL MARKS REGION A



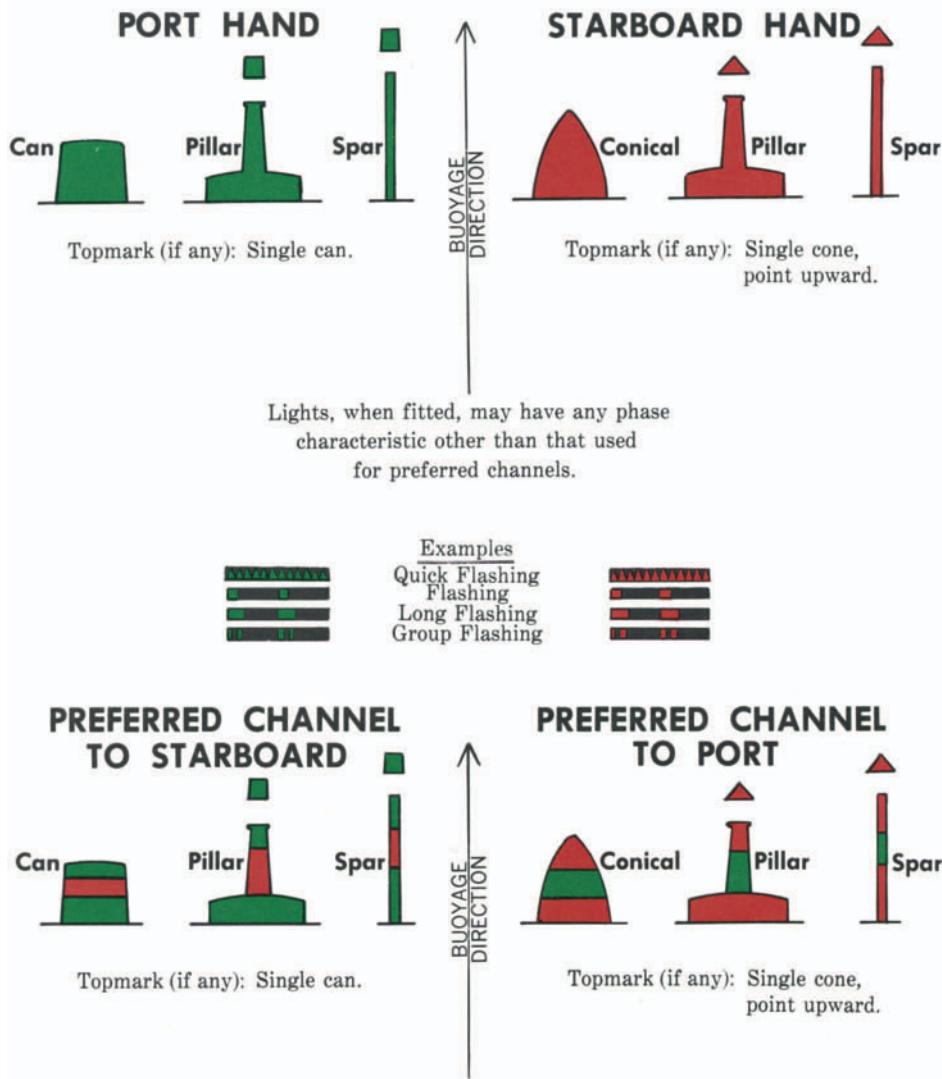
Lights, when fitted, may have any phase characteristic other than that used for preferred channels.



Lights, when fitted, are composite group flashing Fl (2 + 1).

IALA MARITIME BUOYAGE SYSTEM

LATERAL MARKS REGION B



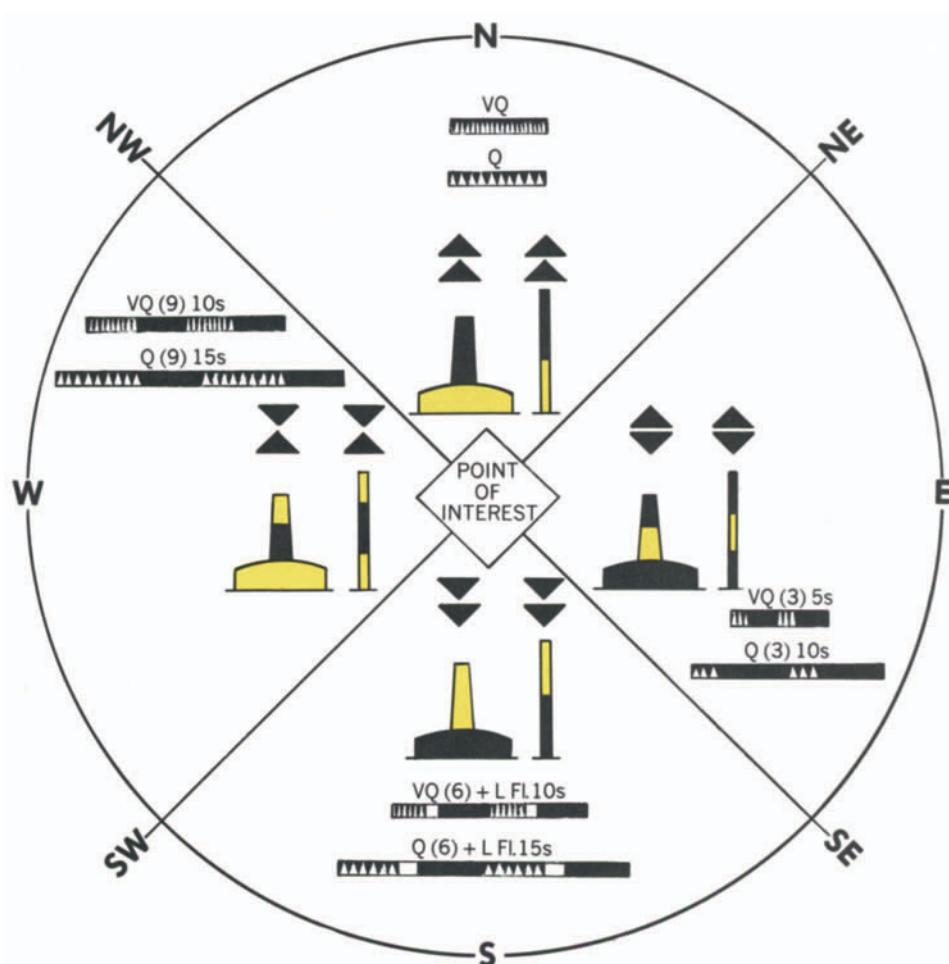
Lights, when fitted, are composite group flashing Fl (2+1).



IALA MARITIME BUOYAGE SYSTEM CARDINAL MARKS REGIONS A AND B

Topmarks are always fitted (when practicable).

Buoy shapes are pillar or spar.



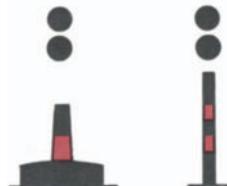
Lights, when fitted, are **white**, Very Quick Flashing or Quick Flashing; a South mark also has a Long Flash immediately following the quick flashes.

IALA MARITIME BUOYAGE SYSTEM

REGIONS A AND B

ISOLATED DANGER MARKS

Topmarks are always fitted (when practicable).



Light, when fitted, is white
Group Flashing (2)



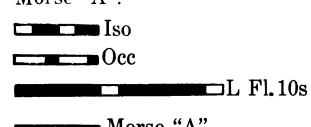
Shape: Optional, but not conflicting with lateral marks; pillar or spar preferred.

SAFE WATER MARKS

Topmark (if any):
Single sphere.



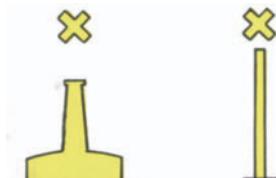
Light, when fitted, is white
Isophase or Occulting, or one Long Flash every 10 seconds or Morse "A".



Shape: Spherical or pillar or spar.

SPECIAL MARKS

Topmark (if any):
Single X shape.



Light (when fitted) is yellow and may have any phase characteristic not used for white lights.

Examples
Fl Y
Fl(4) Y

Shape: Optional, but not conflicting with navigational marks.

Appendix B. Abbreviations and Symbols Commonly Used in Piloting

ATP	Allied Tactical Publication	GMT	Greenwich Mean Time
Bn	beacon	IALA	International Ass'n of Lighthouse Authorities
C	course	JA	captain's battle
CIC	combat information center		sound-powered
CO	commanding officer	JW	telephone circuit
COG	course over the ground		navigation
D	drift		sound-powered
DB	danger bearing	kn	telephone circuit
DG	degaussing	L	knot (of speed)
DMA	Defense Mapping Agency	λ	latitude
DMAHTC	Defense Mapping Agency Hydrographic/Topographic Center	LMT	longitude
DMAODS	Defense Mapping Agency Office of Distribution Services	LOGREQ	local mean time
DR	dead reckoning	LOP	logistics requirement
E	east	LPO	message
ec.	eclipse (of a light)		line of position
ECM	electronic countermeasures		leading petty officer
EP	estimated position	M	officer
ETA	estimated time of arrival	m	magnetic
ETD	estimated time of departure	Mi	meter
fm	fathom	MLW	mile
ft	foot	N	mean high water
		1-N	mean low water
		NEOC	north
		NOS	DMAHTC Catalog of Nautical Charts
		NWOC	Naval Eastern Oceanography Center
			National Ocean Survey
			Naval Western Oceanography Center

OOD	officer of the deck	SOA	speed of advance
OTSR	optimum track ship routing	SOG	speed over ground
P _n	north pole	SOP	standard operating procedure
pgc	per gyro compass	SOPA	senior officer present afloat
PIM	position of intended movement	T	true
PMP	parallel motion	TR	track
	protractor	W	west
PPI	plan position indicator	XO	executive officer
psc	per standard compass	yd	yard (unit of measure)
pstgc	per steering compass	ZD	zone description
P _s	south pole	ZT	zone time
QMOW	quartermaster of the watch		Miscellaneous Symbols
R	relative	°	degrees
RF	radiofrequency	'	minutes of arc
RPM	revolution per minute	"	seconds of arc
S	speed; south; set	□	estimated position
SI	International System of Units	○	fix, running fix
		△	DR position
		λ	longitude

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