

AIS Aids to Navigation (AIS AtoN)

An AIS AtoN is a digital aid to navigation promulgated by an authorised service provider using AIS Message 21 "Aids to navigation report" that is portrayed on devices or systems such as ECDIS, radar or Integrated Navigation System.

An AIS AtoN can either be **Physical** or **Virtual**:

Physical AIS AtoN

A Physical AIS AtoN represents an AtoN that physically exists. A Physical AIS AtoN is not normally encoded in an ENC, however if encoded the information can be found through the pick report when querying the aid to navigation.

Virtual AIS AtoN

A Virtual AIS AtoN represents an AtoN that does not physically exist and is therefore only visible on display systems. Applications of Virtual AIS AtoN include the timely marking of new wrecks, floating debris, uncharted hazards, and virtual shipping lanes or in circumstances where a physical AtoN cannot be established.

Virtual AIS AtoN are only shown in an ENC, where it is known that the Virtual AtoN is permanent, or deployed for a specific fixed period; they are easily identified by the symbols shown in the table below.

Please note that in addition to the ENC symbols shown below, other symbols (normally in the shape of a diamond) may exist for AIS AtoN in ECDIS when within broadcast range however as these are not included in the ENC data they have not been included in this quick guide.

Quick Guide to Virtual AIS AtoN Symbols

ENC Symbol	Explanation	ENC Symbol	Explanation
 V-AIS	North Cardinal	 V-AIS	Port Lateral (IALA A)
 V-AIS	East Cardinal	 V-AIS	Starboard lateral (IALA A)
 V-AIS	South Cardinal	 V-AIS	Port Lateral (IALA B)
 V-AIS	West Cardinal	 V-AIS	Starboard lateral (IALA B)
 V-AIS	Isolated Danger	 V-AIS	Special Purpose
 V-AIS	Safe Water	 V-AIS	Emergency Wreck Marking

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Quick Guide to ENC Symbols



This quick reference guide is to help you recognise some of the lesser known ENC symbols. It is not intended to replace 'ECDIS Chart 1'.

The ENC Symbols shown are in daytime colours. They may be shown in different colours/shades in other palettes.

For further guidance on ENC Symbols see NP5012-ADMIRALTY Guide to ENC Symbols used in ECDIS.

ENC Symbol	Explanation	Additional Information	5011 Ref
	Generic isolated danger symbol – with less depth than user-selected safety contour or where the depth is unknown	Wreck, rock or obstruction	K
	Sounding of low accuracy	Equates to sounding of doubtful depth	I2 I14
	6 stars A1 All significant seafloor features detected; very high accuracy survey 5 stars A2 All significant seafloor features detected; high accuracy survey 4 stars B Uncharted features dangerous to navigation are not expected but may exist; medium accuracy survey 3 stars C Depth anomalies may be expected; low accuracy survey or passage soundings 2 stars D Large depth anomalies may be expected; poor quality data U Quality of bathymetry yet to be assessed		
	Caution area where a specific caution note applies	Refer to cursor enquiry to access additional information Refer to ECDIS Chart I for more examples	N27
	Dredged area deeper than safety contour Darker blue indicates water shoaler than safety contour	Refer to cursor enquiry for more information	I20
	Vertical lines indicate areas of charted data at significantly smaller scale than main display	Zoom out until vertical lines disappear to view at scale appropriate to data	
	Indicates boundary between IALA A and B buoyage systems	See NP735	
	Isolated query indicates insufficient information to symbolise the feature Query associated with symbol indicates absence of a mandatory attribute, such as beacon shape, direction or orientation	Query may appear alone at a point, on a line or in a defined area. Further information may be obtained from cursor enquiry of the query	Q80 H40-43 M27.2
	Limit between area of unofficial vector data and official ENC data, marked by orange pecked line – pecks angled towards unofficial vector data	May be shown the other way around on older ECDIS. Within areas of non-ENC data, an alternative, official chart must be used for navigation	

ENC Symbol	Explanation	Additional Information	5011 Ref
	Indicates that an additional information note or picture file is available	The information, note or graphic can be found using cursor enquiry	
	Non-tidal current direction		H42
	Spring tide – Ebb Flood		H41 H40
	Light vessel/lightfloat		P6 Q30
	Daymarks		Q82-126
	New Object – Point New Object – Line New Object – Area	New type of feature not yet known to ECDIS – further information available by cursor enquiry	
Symbol setting on ECDIS		For details of the IALA Maritime Buoyage System. Refer to NP 735	
Simplified	Traditional		
		Lateral beacons – red/green	IALA applicable system
		Lateral conical buoys – red/green, according to applicable IALA system	IALA applicable system Q 130.1
		Lateral can buoys – red/green	IALA applicable system Q 130.1
		Cardinal marks north/east/south/west (Cardinal mark north shown for Traditional)	Q 130.3
		Isolated danger marks	Q 130.4
		Safe water buoy	Q 130.5
		Special marks	Shape/topmarks are optional – colour yellow Q 130.6
		Special purpose buoys, for example; TSS lane markers	Shape/topmarks optional – colour yellow Q 130.6
		Buoy – mooring	Q40