After a call for action during a IHMA congress in 2006 by the shipping industry, the IHMA and the UKHO have been working hard to come up with a structure for port information.

# IHMA and UKHO PORT INFORMATION PROJECT:

# FUNCTIONAL DEFINITIONS FOR NAUTICAL PORT INFORMATION

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### Revision history

| | | |
|---|---|---|
| **Version 1.0** | **December 2016** | **Created** |
| **Version 2.0** | **March 2017** | **Major revision and formatting. Sent for review.** |
| **Version 4.0** | **June 2017** | **Following review by shipping companies and stakeholders.** |
| **Version 5.2** | **August 2017** | **Further review by shipping companies and stakeholders.** |
| **Version 5.3** | **January 2018** | **Further review by stakeholders. Addition of source listing** |

# INTRODUCTION

## Background

Since 2006, after a call for action by the shipping industry during a congress in Malta, the IHMA (International Harbour Masters Association) and UKHO (United Kingdom Hydrographic Office) have been working hard to come up with a defined structure and authoritative definitions for port information which can be distributed to both ports and vessels for the purpose of improving communications and port efficiency.

An initial project, AVANTI (Access to Validated, Nautical Information) and later PRONTO (Port Rendezvous Of Nautical and Terminal Operations), examined the needs of all stakeholders involved in vessel operations in ports and a website, designed to address those needs was produced. As an offshoot of that initial project the importance of consistent standards and definitions emerged which is the objective of this publication.

A high priority is placed on the ability for vessels and the various port agencies to communicate using clear and authoritative definitions for the various terms used daily in port operations. The definitions contained here are sourced from existing standards within the shipping industry. Only when no applicable definition could be found a new one was introduced and published via the glossary of the UKHO's Mariners Handbook (NP100), the publication available most frequently on the bridge of all SOLAS (UN Safety Of Life At Sea convention) vessels and in most offices of harbour masters globally.

Together with leading shipping lines, ports and hydrographic offices the following needs have been identified:

- The need for global, cross industry functional definitions. Many resources have been spent looking for existing definitions within the shipping industry and beyond (e.g. World Meteorological Office, International Standardisation Organisation))
- The need for global data definitions and formats to share data
- The need for an application that allows ports to manage their data using their local language and their own information database, but which also allows them to share data
- The need to address SOLAS compliance, Charter Party clauses, the business process of shipping, and the legal exposure of the port itself

The project was initiated by the following bodies:

- International Harbour Masters Association, European Harbour Master Committee
- United Kingdom Hydrographic Office
- Lloyds Marine Intelligence Unit
- The taskforce - Port Call Optimization (Shell, Maersk Line, MSC, CMA-CGM, Port of Gothenburg, Port of Singapore, Port of Houston, Port of Algeciras, Port of Busan, Port of Rotterdam)

The following standards bodies have been consulted to arrive at the definitions contained within this document.

- International Harbour Master Association, International Association of Marine Aids to Navigation and Lighthouse Authorities, United Kingdom Hydrographic Office, International Hydrographic Organisation, BIMCO , Oil Companies International Marine Forum, GS1, International Standardisation Organisation

The project is supported by:

- United Kingdom Protection and Indemnity Club (UK P&I)

## How this guide is organised:

SECTIONS – this guide groups its definitions according to a vessel's passage through a port. As the vessel moves within a port it passes through a number of discrete, mutually exclusive "sections" of the port, which are well defined areas of the port's jurisdiction within which particular restrictions or rules may apply

The content of this guide reflects this journey by splitting the definitions into the following parts:

1. Definition of terms used during a vessel's port call.
    a. Section Type information dealing with the characterisation of individual port sections and terms defining them.
    b. Vessel information – information regarding the actual vessel and its dimensions.
    c. Definitions relating to depth information
    d. Definitions relating to restrictions enforced within the port either from external conditions within the port or specific to vessel dimensions or manoeuvres
    e. Provision of VTS (Vessel Traffic Services)
2. General Information about the port. This part defines minimum general information which should be available about each port.
3. Event information. This part defines terms and formats used for recording information within the port relevant to an individual vessel's port call.

Each entry in this guide is formatted as per the example below:

| | |
|---|---|
| Summer Dead Weight Tonnage | The weight, of cargo, stores, fuel, passengers and crew |

| | |
|---|---|
| | carried by a vessel when loaded to her maximum summer load line. **Units: Tonnes (1000kg) or Tons (2240lb)** |

The term being defined is to the left of the page with the definition on the right. If units or format are required, then they are clearly indicated in the definition text.

## Location Identifiers:

It is important that unique identifiers for real-world features are available and the project has engaged with the GS1 standardisation group (http://www.gs1.org/gln) to promote the use of Global Location Numbers (GLN) for the identification of features defined within this publication. The aim is that as ports define their facilities within the parameters of the standards defined within this publication they will use GLN numbers to assign a unique identifier to each location which will remain in place at all times.

## INDIVIDUAL PORT SECTIONS

This part of the guide contains definitions which relate to particular "sections" of a port in terms of the vessel's passage through them. The definitions cover routeing and traffic measures in port approaches as well as natural and man-made features relevant to safe navigation. Each term defined here will be linked to a single "section" within the port's jurisdiction.

| | |
|---|---|
| **Port** | Any port, terminal, offshore terminal, ship and repair yard or roadstead which is normally used for the loading, unloading, repair and anchoring of ships, or any other place at which a ship can call. The word also embraces, geographically, the city or borough which serves shipping interests. |
| **Roads** | An open anchorage which may, or may not, be protected by shoals or reefs affording less protection than a harbour. Sometimes found outside harbours |
| **Deep Water Route** | A route in a designated area, within defined limits, which has been accurately surveyed for clearance of sea bottom and submerged obstacles to a minimum indicated depth of water |
| **Traffic Separation Scheme** | A scheme which aims to reduce the risk of collision in congested and/or converging areas by separating traffic moving in opposite, or nearly opposite, directions |
| **Anchorage** | An area in which vessels anchor or may anchor |
| **Anchor berth** | A designated area of water where a single vessel may anchor |
| **Precautionary area** | A routeing measure comprising an area within defined limits where ships must navigate with particular caution and within which the direction of traffic flow may be recommended |
| **Pilot Boarding Place** | At sea, the meeting place to which the pilot comes out |
| **Pilot Station** | Ashore, a lookout station keeping visual watch, or an office or headquarters of pilots; the place where the services of a pilot may be obtained |
| **Fairway** | Sometimes called Ship Channel. The main navigable channel in the approaches to, or within, a river or harbour |
| **Basin** | A sheltered body of water available for port operations connecting either with the sea, with an outer port or with another basin |
| **Turning basin** | An area of water or enlargement of a channel in a port, where vessels are enabled to turn, and which is kept clear of obstructions such as buoys for that purpose |
| **Berth** | A named or numbered place where a vessel can moor or anchor (e.g. a wharf, quay, jetty, mooring buoy, or berthing dolphins) |

| | |
|---|---|
| **Berthing Position** | The actual position where a vessel is moored or anchored. E.g. at a wharf of quay, the bollard number at fore and aft of the vessel, at a jetty, the manifold position |
| **Berth status** | The status of an individual berth, e.g. operational, under construction |
| **Bridge** | A structure erected over a depression or an obstacle such as a body of water, railroad, etc. to provide a roadway for vehicles, pedestrians or to carry utility service(s) |
| **Lock** | An enclosure at the entrance to a tidal basin, or canal, with caissons or gates at each end by means of which ships are passed from one water level to another without materially altering the higher level |
| **Barrier** | An obstruction, usually artificial, in a river |
| **Sea Buoy** | The outermost buoy marking the entrance to a channel or harbour. |

## VESSEL INFORMATION

This set of definitions cover elements of the vessel itself, its dimensions and other statistics.

| | |
|---|---|
| **IMO number** | A number assigned to sea-going merchant vessels under the International Convention for the Safety of Life at Sea (SOLAS). These are assigned by IHS Fairplay to individual vessels. Format: The characters "IMO" followed by a unique seven-digit number, e.g. "IMO 9227338" |
| **Vessel Type** | The purpose of the vessel. A comprehensive list of unique vessel types taken from the IHS Fairplay's comprehensive "statcode" system is reproduced in Appendix B |
| **Length Overall (LOA)** | The maximum length of a vessel's hull measured parallel to the waterline. Units: decimal metres |
| **Parallel Mid- Body (PMB)** | The measurement (length) at the water line of the flat side of the vessel. Units: decimal metres |
| **Estimated Minimum Parallel Mid-Body Alongside** | The estimated minimum PMB of the vessel during time alongside, including both arriving and departing the berth and while alongside the berth. Units: decimal metres |
| **Beam** | The beam of a ship is its width at the widest point as measured at the ship's nominal waterline. Units: decimal metres |
| **Draught** | The vertical distance from the bottom of the keel to the waterline (sometimes measured against a defined water density measured in $kg/m^3$). Units: decimal metres |
| **Air Draught** | The distance from the waterline to the highest point on a vessel. Units: decimal metres |
| **Displacement tonnage** | The weight of water displaced by a vessel and is equal to her weight and all that is in her. Units: Tonnes (1000kg) or Tons (2240lb) |
| **Arrival Displacement** | The displacement of the vessel on arrival at the berth |
| **Maximum Displacement Alongside** | The maximum displacement of the vessel while alongside the berth |
| **(Summer) Deadweight Tonnage (DWT)** | The difference in tonnes between the displacement of a ship in water of a specific gravity of 1.025 (corresponding to average density of sea water) at the draught corresponding to the assigned summer freeboard and the light displacement (lightweight) of the ship. This can also be defined as the weight, of cargo, stores, fuel, passengers and crew carried by a vessel when loaded to her maximum summer load line. Units: Tonnes (1000kg) or Tons (2240lb) |
| **Gross tonnage (GT)** | Measured according to the law of the national authority with which a vessel is registered. This measurement is, |

| | |
|---|---|
| | broadly, the capacity in cubic feet of the spaces within the hull and of the enclosed spaces above the deck available for cargo, stores, passengers and crew, with certain exceptions, divided by 100. Units: Dimensionless |
| **Net tonnage** | Derived from gross tonnage by deducting spaces of the accommodation of crew, navigation, machinery and fuel. Unit: Dimensionless |
| **Vessel Direction** | The general direction of the vessel for which information applies. Text: one of: Inbound, Outbound, Alongside, Shifting, Upriver, Downriver |

| | |
|---|---|
| **Inbound** | Ship's physical movement from approach to (anchor) berth |
| **Outbound** | Ship's physical movement from (anchor) berth to its next destination |
| **Shifting** | Ship's physical movement from (anchor) berth to (anchor) berth |
| **Alongside** | Time from First Line Secured till Last Line Released |
| **Upriver or Upstream** | Toward the source of a stream or river. |
| **Downriver** | Toward the mouth of a stream or river |
| **(Vessel) Transit** | Passing through a port without calling at a berth |
| **Turning** | Swinging the ship over port or starboard bow |

## DEPTH INFORMATION

This part of the guide defines terms relevant to the measurement of depth within individual port sections.

| | |
|---|---|
| **Sounding Datum / Chart Datum** | The vertical datum to which soundings, maintained depths and drying heights on a chart are referred. It is usually taken to correspond to a low water stage of the tide Units: Named datum |
| **Maintained Depth** | The depth at which a channel is kept by human influence, usually by dredging. Units: decimal metres with reference to a specific Sounding Datum |
| **Sounding** | Measured or charted depth of water or the measurement of such a depth. Units: decimal metres with reference to a specific Sounding Datum |
| **Sounding Minimum** | The minimum (shoalest) value of a depth range. Units: decimal metres with reference to a specific Sounding Datum |
| **Sounding Maximum** | The maximum (deepest) value of a depth range. Units: decimal metres with reference to a specific Sounding Datum |
| **Height of tide** | Units: The vertical distance between the chart datum to the level of the water at a particular time. Units: decimal metres with reference to a specific Sounding Datum |
| **Tidal Prediction** | A prediction of the vertical change in water level and/or the horizontal flow of tidal streams at a particular time in a specific location. Normally a prediction of astronomical tidal effects only. Units: decimal metres with reference to a specific Sounding Datum |
| **Astronomical Tide** | A change in water level caused by the attraction of the sun , moon and planets |
| **Environmental Tide** | A change in water level caused by local meteorological conditions |
| **Residual Tide** | A correction to astronomical tide to account for local weather condition and river flow |
| **High Water / High Tide** | The highest level reached at a place by the water surface in one oscillation. Units: decimal metres with reference to a specific Sounding Datum |
| **Low Water / Low Tide** | The lowest level reached at a place by the water surface in one oscillation. Units: decimal metres with reference to a specific Sounding Datum |
| **Water Density** | Density is equivalent to specific gravity and represents the ratio, at atmospheric pressure, of the weight of a given volume of sea water to that of an equal volume of distilled water at 4 degrees Celsius. Units: $kg/m^3$ |

| | |
|---|---|
| **Minimum Water density** | The minimum water density value within a particular area. Units: $kg/m^3$ |
| **Nature of Bottom** | The feature of the bottom including the material of which it is composed and its physical characteristics. Formatted according to International Chart 1, BA Chart 5011 e.g. Sand, Mud, Clay, Silt, Stones, Gravel, Pebbles, Cobbles, Rock, Boulder, Coral |
| **Dredged area** | An area of the bottom of a body of water which has been deepened by dredging |
| **Dredging regime** | The strategy adopted in a dredged area to ensure that the actual depth within the area is never less than a specific depth |
| **Overdredge** | An additional depth margin provided by a dredging operation to ensure that the depth at a specific location is never less than the pre-determined maintained depth over the interval between programmed dredging operations Units: decimal metres |

## RESTRICTIONS

A restriction is a rule imposed by an authority on vessel operations due to some external factor. A restriction is normally applicable within a particular area, usually a named section of the port.

Restrictions are generally applied to vessels defined by their specific type, size, direction of travel and other factors.

Restrictions are broadly divided into those specific to a vessel's dimensions, related to conditions within the port (or port section) or those specific to a vessel's planned manoeuvring or berthing operations.

## RESTRICTIONS - Restrictions specific to vessel dimensions.

| | |
|---|---|
| **Under Keel Clearance (UKC)** | The distance between the lowest point of the ship's hull, normally some point on the keel, and the sea bottom. Units: A defined value in decimal metres or a percentage of draught and/or beam |
| **UKC policy** | A restriction imposed by an authority on a vessel to ensure the depth below the keel meets an acceptable (usually minimum) single or range of values. Units: A defined value in decimal metres or percentage of draught and/or beam |
| **Dynamic UKC** | The change in draught of a vessel due to vessel motion and manoeuvring in the water. Determined using real time measurement of tides and waves together with modelled vessel motions (pitch, roll, yaw, heave, sway). Also includes squat. Units: A defined value in decimal metres or a percentage of draught and/or beam |
| **Allowance** | A component of a vessel's overall UKC value due to a specific named factor |
| **Under Keel Allowance** | The estimated minimum UKC in a given area. Units: Units: A defined value in decimal metres or percentage of draught and/or beam |
| **Motions Allowance** | A component of UKC allowance to account for the combined effect of vessel motion on the draught of the vessel. Units: A defined value in decimal metres or percentage of draught and/or beam |
| **Fresh Water Allowance** | The change in draught of a vessel due to the difference between salt and fresh water |
| **Maximum draught without over the tide operations** | Maximum draught without utilizing tidal operations. Units: decimal metres to a defined water density measured in $kg/m^3$ |
| **Maximum draught with over the tide** | Maximum draught utilising tidal changes to discharge or |

| | |
|---|---|
| **operations** | load cargo before a low tide level is reached, thus maintaining the vessel "always afloat". Units: decimal metres, to a defined water density measured in kg/$m^3$ |
| **Maximum length** | Maximum permitted length overall (LOA). Units: decimal metres |
| **Minimum Parallel Mid-Body Alongside** | The minimum PMB requirement for the berth during time alongside, including both arriving and departing the berth. Units: decimal metres |
| **Maximum beam** | Maximum permitted beam. Units: decimal metres |
| **Maximum air draught** | Maximum permitted air draught. Units: decimal metres |
| **Maximum tonnage** | Maximum tonnage, specified with reference to a particular tonnage type. Units: Tonnes (1000kg) or Tons (2240lb) |
| **Safe Overhead Clearance** | The height above a given vertical datum at which the highest points of a ship can pass under an overhead power cable without risk of electrical discharge from the cable to the ship or without making contact with a bridge. Units: decimal metres. |
| **Maximum Arrival Displacement** | The maximum displacement of the vessel on arrival at the berth. Units: Tonnes (1000kg) or Tons (2240lb) |
| **Maximum Displacement Alongside** | The maximum displacement of the vessel whilst alongside the berth. Units: Tonnes (1000kg) or Tons (2240lb) |

## RESTRICTIONS - Restrictions related to external conditions.

| | |
|---|---|
| **Vertical tide restriction** | Restriction due to the height of tide. Referred to tidal information at location. Tidal Window can be in hours before or after High (or Low) water of reference station. Decimal hours are used for description of tidal window. Decimal metres are used for description of tidal height |
| **Horizontal tide restriction** | Restriction due to the tidal stream at any point. Referred to tidal information at location. Tidal Window can be in hours before or after High (or Low) water of reference station. Decimal knots are used for description of tidal stream rate and degrees for tidal stream direction if specified |
| **Wind restriction** | Restriction due to the strength of wind at any point. Referred to wind information at location. Wind speed: metres per second; wind direction: clockwise from quadrant to quadrant, 2 points accuracy. (e.g. NNE to ENE) |
| **Visibility restriction** | Restriction due to the visibility. Referred to visibility information at location. Units: metres |
| **Ice restriction** | Period of the year in which the port may be affected by ice and restrictions may be put in place. Format: Start and End date of restriction |
| **Sea State restriction, i.e. swell.** | A restriction imposed because of exceptional sea state conditions. Units: decimal metres (swell), significant wave/swell height (metres) or significant wave/swell period (seconds) |
| **Extra measures** | Any extra measures necessary for the safe handling of the vessel under the conditions specified in other restrictions |

## RESTRICTIONS - Related to vessel manoeuvring and berthing.

The following section defines categories of restrictions which are related to an individual vessel's manoeuvring or berthing operations.

| | |
|---|---|
| **Speed restriction** | Restriction due to vessel speed. Knots (Nautical miles per hour) specified as over ground or through the water |
| **Passing restriction** | Local rules in addition to collision regulations which place restriction on how and where vessels may pass each other |
| **Mandatory tug use** | Tug(s) which a vessel must use within a port region under all conditions |
| **Berthing information** | Information on berthing from a port authority intended for safe mooring of a vessel |
| **Extra measures** | Any extra measures necessary for the safe handling of the vessel under the conditions specified in other restrictions |

## VESSEL TRAFFIC SERVICE INFORMATION

A VTS (Vessel Traffic Services) is a service implemented by a Competent Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment.

The definitions within this part of the guide are normally applied per port section. Unless otherwise stated all definitions are specified as free text.

| | |
|---|---|
| **VTS Area** | The delineated, formally declared service area of the VTS. A VTS area may be subdivided into sub-areas or sectors. A VTS Area may be divided into a number of sectors to ensure that the loading is within the capability of each VTS Operator to manage. This will depend on factors such as traffic density, traffic patterns, type(s) of service and surveillance requirements |
| **Vessel Traffic Service** | A service implemented by a Competent Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area |
| **Competent Authority** | The authority made responsible, in whole or in part, by a Government for safety, including environmental safety, and efficiency of vessel traffic and the protection of the environment |
| **VTS Authority** | The authority with responsibility for the management, operation and co-ordination of the VTS, interaction with participating vessels, and the safe and effective provision of the service |
| **VTS Operator** | An appropriately qualified person performing one or more tasks contributing to the services of the VTS. |

## GENERAL PORT INFORMATION

This part of the guide defines the requirements for information regarding the entire port / port authority. The information specified by these definitions covers all sections of the port. Where information should be in a particular format the content is described with the definition. It is required for all ports to define the information within this section.

| | |
|---|---|
| **General information** | General, introductory information about the port. This should be confined to information not contained in any other definitions |
| **Developments** | Details of any active development affecting traffic in the port. Long term development plans should not be covered here but reference can be made to a section on the port website |
| **Port Location** | A single position which represents the port as a whole (generally a centre of gravity position is chosen to represent the port's location)<br>**Format**:<br>• Latitude: degrees, decimal minutes WGS 84<br>• Longitude: degrees, decimal minutes WGS 84<br>• Country Code: ISO 3166-1, 2 characters<br>• UN Location Code: UN Code for Trade and Transport<br>• Location Description: free text |
| **Limits description** | Description of the area covered by the information specified |
| **ISPS security level** | Current security level of the port according to the International Ship and Port Facility Security Code : http://www.imo.org/blast/mainframe.asp?topic_id=897#levels<br>**Format**:<br>• ISPS Security Level: Level 1,2 or 3<br>• Qualifying Remarks: free text |
| **Load Line Zone** | The load line zone in which the port is located, as defined by the IMO's International Convention on Load Lines<br>**Format:**<br>Free text according to the IMO Loadline convention with respect to the seasonal zones: :<br>Summer, Winter, Tropical, Winter North Atlantic, Fresh, Tropical Fresh |
| **Maximum vessel sizes** | Any size constraints on vessels using the port as a whole. It is not intended to capture constraints that may exist within an individual berth or port section - these should be captured in the appropriate section<br>**Format**:<br>• Maximum length: in decimal metres |

| | |
|---|---|
| | • Maximum beam: in decimal metres<br>• Maximum air draught: in decimal metres<br>• Supplementary information: free text |
| **Time Zone** | Time zone in which the port is located<br>**Format**:<br>• Standard Time: UTC +/- xx hrs<br>• Daylight Saving Time: UTC +/- xx hrs<br>• DST Start: date<br>• DST End: date |
| **Local holidays** | Dates and names of any local or national holidays that may affect the working of the port<br>**Format**:<br>• Name: free text<br>• Start Date: date<br>• End Date: date |
| **Working hours** | Working days and hours for the Port Authority, i.e. the times when they are contactable. It does not define the specific working times of various port services or terminals: these should be recorded as individual services<br>**Format**:<br>• Start Day: free text<br>• End Day: free text<br>• Week Day Start: free text<br>• Week Day End: free text |
| **Cargo** | Types of cargo handled by the port<br>• Cargo Type: free text<br>• Weight of Goods: weight of goods or number of containers per calendar year in tonnes<br>• Supplementary Information: free text |
| **Charts** | Charts and publications that can be used to navigate the port approaches and port basins and waterways<br>**Format (per chart or publication)**:<br>• Chart Number: free text<br>• Title: free text<br>• Identifier: free text<br>• Publisher: free text |
| **Shipping announcements** | Local shipping announcements relevant to port users |
| **Legal disclaimer** | Any additional legal disclaimers that a port wish to make |
| **Website** | Hyperlink to the official port website |

## CONTACT INFORMATION

This section defines the content of contact details.

Contact details will generally be supplied for:

1. All people and service providers who are the recipients of reports under the "reports and documentation " section
2. The emergency coordination centre
3. The service providers referenced under "nautical services" and "vessel services"

| | |
|---|---|
| **General contact information** | Introductory text or high level, nonspecific information for contacting people in the port. This does not contain specific name, address or other contact details for any individual or service (These are defined as individual "Point of contact") |
| **Point of contact** | Detailed contact information for an official point of contact within the port<br>**Format**:<br>• Individual Name: free text<br>• Department name: free text<br>• Role: free text<br>• Hours of Service: free text<br>• Contact Instructions: free text<br>• Voice Number: free text<br>• Fax Number: free text<br>• VHF Channel: free text<br>• E-mail: free text<br>• Delivery Point: free text<br>• City: free text<br>• Administrative Area: free text<br>• Postal Code: free text<br>• Country: free text |
| **Inter ship Communication** | Specification of a communication channel for vessels in the port or a port section<br>**Format**:<br>• VHF Usage: free text<br>• VHF Channel: free text<br>• Remarks: free text |

## WEATHER AND TIDAL INFORMATION

Weather and tide information for the port

| | |
|---|---|
| **Real time weather and tidal information** | Links to any official real-time weather or tidal information provided by the port<br>**Format**: Free text or reference to a port website |
| **Local weather and tidal phenomena** | Details of any important local weather or tidal conditions within the port<br>**Format**:<br>• Phenomena: free text<br>• Details: free text<br>• Location: free text |

## REPORTS & DOCUMENTATION

Defines the various reports (e.g. notification, declarations, reports) and documentation that a visiting vessel will be expected to send to the port either before arrival, during its stay in port or before and after departure. Port's reports will be in fixed formats and will require completion. Documentation are standardised documents which need to be presented to the port authorities. The exact requirements will vary per port.

| | |
|---|---|
| **Pre arrival Reports** | Detailed requirements for each report that needs to be sent to the port before arrival<br>**Format**:<br>• Report Category: free text<br>• Who: free text<br>• What: free text<br>• To: free text<br>• How: free text<br>• When: free text<br>• Remarks: free text |
| **In port Reports** | Detailed requirements for each report that needs to be sent to the port whilst in port<br>**Format**:<br>• Report Category: free text<br>• Who: free text<br>• What: free text<br>• To: free text<br>• How: free text<br>• When: free text<br>• Remarks: free text |
| **Pre departure Reports** | Detailed requirements for each report that needs to be sent to the port prior to departure<br>**Format**:<br>• Report Category: free text<br>• Who: free text<br>• What: free text<br>• To: free text<br>• How: free text<br>• When: free text<br>• Remarks: free text |
| **Documentation Requirements** | Details of any documentation that vessels will be required to provide to authorities in port<br>**Format**:<br>• Vessel Type: free text |

| | |
|---|---|
| | • Document: free text |

## REGULATIONS AND EXEMPTIONS

Details of any relevant local regulations that apply in the port such as bunkering procedures, use of linesmen or Pilot Exemption Certificate (PEC). This does not include national or international regulations which may be documented elsewhere.

| | |
|---|---|
| **Regulation** | Details of any local regulations that apply in the port or its surrounding waters<br>Free text or reference to a port website |
| **Exemptions** | Any exemptions that may apply to classes of vessel or suitably qualified people<br>Free text or reference to a port website |

PORT SAFETY

Identification of equipment, procedures and points of contact that should be used in case of an emergency within the port

| | |
|---|---|
| **Emergency coordination centre** | The Emergency Coordination Centre information for the port. Individuals should be entered as a "Point of Contact" and referenced within this information<br>Free text |
| **Emergency response equipment** | Types, locations and availability of emergency response equipment<br>**Format**:<br>• Equipment Type: free text<br>• Equipment Availability: free text |
| **Emergency procedures** | Relevant emergency response procedures<br>**Format**:<br>• Category of Emergency: free text<br>• Emergency Procedure: free text |

## SERVICES

This section defines the individual services that are available in the port

| | |
|---|---|
| **NAUTICAL SERVICES** | Services related to the safe passage and berthing of the vessel: VTS, Pilotage, Towage/Tugs, Lines<br>**Format**:<br>• Nautical Service Type: free text<br>• Service Name: free text<br>• Service Location Description: free text<br>• Service Area Description: free text<br>• Service Hours: free text<br>• Working Hours: free text<br>• Service Details: free text |
| **VESSEL SERVICES** | Services related to the vessel and her cargo: Bunkers Lube oil, Potable water, Provisions, Stores, Waste per IMO class, Repairs, lashing, Cargo survey, Draught survey, Vetting<br>**Format**:<br>• Vessel Service Type: free text<br>• Service Name: free text<br>• Service Location Description: free text<br>• Service Area Description: free text<br>• Service Hours: free text<br>• Service Details: free text<br>• Working Hours: free text<br>➢ Start Day: free text<br>➢ End Day: free text<br>➢ Week Day Start: free text<br>➢ Week Day End: free text |

## EVENT INFORMATION

The port call of a vessel is defined in terms of a sequence of mutually exclusive “events”. Each event is a snapshot in time, i.e. it has a beginning and an end time and takes place in a particular location. The definition of individual events are also defined in this section and are in line with International Maritime Organization Facilitation (FAL) logbook and manoeuvring book entries.

## ARRIVAL AND DEPARTURE TIMES

This section contains definitions for the specification of planned and actual arrival and departure events within a location. All events are specific to a particular time window and place. Locations (Places) are defined either as named port sections or local conspicuous locations

All times are formatted according to ISO 8601 and have the form: **YYYY-MM-DDTHH:MM:SSZ.** Here “Z” represents the “zero” time zone (UTC+0) and T represents “Time”.

| | |
|---|---|
| **ETA- Location – Estimated Time of Arrival - Location** | The Date/Time when a vessel estimates it will arrive at a specified location, as per port section standards |
| **ATA- Location – Actual Time of Arrival - Location** | The Date/Time when a vessel arrives at a specified location, as per port section standards |
| **ETD - Location– Estimated Time of Departure - Location** | The Date/Time when a vessel estimates it will depart from a specified location, as per port section standards |
| **ATD - Location– Actual Time of Departure - Location** | The Date/Time when a vessel departs from a specified location, as per port section standards |
| **PTA --Location – Planned Time of Arrival- Location** | The Date/Time when a vessel is planned to arrive at a specified location, as per port section standards |
| **PTD - Location – Planned Time of Departure - Location** | The Date/Time when a vessel is planned to depart from a specified location, as per port section standards |

## NAUTICAL SERVICE TIMES

The definition of each type of event are shown in the following table.

| | |
|---|---|
| **Pilot On Board - Vessel Direction** | Actual Date/Time the Pilot Safely embarked the vessel to be piloted, as per vessel standards |
| **Pilot Disembarked** | Actual Date/Time the Plot physically disembarked the vessel that has been piloted |
| **Tugs Stand By & Ready to Assist** | Actual Date/Time the Tug(s) are available to assist the vessel |
| **Tugs Dismissed** | Actual Date/Time the Tug(s) are no more available to assist the vessel |
| **First Line Secured / Released** | Actual Date/Time the First Mooring Line was secured or |

| | |
|---|---|
| | released |
| **Last Line Secured / Released** | Actual Date/Time the Last Mooring Line was secured or released |
| **Safe Access to Shore open** | Actual Date/Time the Gangway in position as per applicable regulations |
| **Safe Access to Shore closed** | Actual Date/Time the Gangway raised |
| **All Fast** | All lines tight and secured, ETOPS secured if applicable |
| **All Clear** | All lines clear of propellers and bow thrusters |

## VESSEL SERVICE TIMES

This sections defines the terms used to capture the date/time of events related to servicing of a vessel during its port call. Services may vary widely and range from cargo services to bunkering, provision, repairs, maintenance cleaning etc. All entries are formatted as ISO8601 Date/Time stamps.

| | |
|---|---|
| **ETS - Service – Estimated Time of Start – Service** | Date/Time when a service provider estimates a specified service will start |
| **ATS - Service – Actual Time of Start - Service** | Actual Date/Time when a service provider starts a specified service |
| **ETC - Service – Estimated Time of Completion - Service** | Date/Time when a service provider estimates a specified service will be completed |
| **ATC – Service – Actual Time of Completion - Service** | Actual Date/Time when a service provider completes a specified service |
| **PTS** | The Date/Time when a service is planned to start at a specified vessel |
| **PTC** | The Date/Time when a service is planned to be completed at a specified vessel |

## List of Abbreviations.

| | |
|---|---|
| **AVANTI** | Access to Validated, Nautical Information |
| **BIMCO** | Baltic and International Maritime Council |
| **DWT** | Deadweight Tonnage |
| **EHMC** | European Harbour Masters Committee |
| **ENC** | Electronic Navigational Chart |
| **ETOPS** | Emergency Towing Off Pendants |
| **FAL** | Facilitation of International Maritime Traffic |
| **GLN** | Global Location Number |
| **GT** | Gross Tonnage |
| **IALA** | International Association of Marine Aids to Navigation and Lighthouse Authorities |
| **IHMA** | International Harbour Masters Association |
| **IHO** | International Hydrographic Organisation |
| **ISO** | International Organisation for Standardisation |
| **ISPS** | International Ship and Port Facility Security (Code) |
| **LMIU** | Lloyds Marine Intelligence Unit |
| **LOA** | Length Overall |
| **OCIMF** | Oil Companies International Marine Forum |
| **PEC** | Pilot Exemption Certificate |
| **PMB** | Parallel Mid-Body |
| **PRONTO** | Port Rendezvous Of Nautical and Terminal Operations |
| **SOLAS** | Safety Of Life At Sea (Convention) |
| **TSS** | Traffic Separation Scheme |
| **TZ** | TimeZone |
| **UKC** | Under Keel Clearance |
| **UKHO** | United Kingdom Hydrographic Office |
| **UKP&I** | United Kingdom Protection and Indemnity (Club) |
| **UN** | United Nations |
| **VHF** | Very High Frequency |
| **VTS** | Vessel Traffic Service |
| **WMO** | World Meteorological Organisation |

## List of Sources.

**The following sources have been used in the compilation of this document.**

| | |
|---|---|
| **IHO S-32 Hydrographic Dictionary** | Vessel berthing and Routing |
| **UKHO Mariner's Handbook NP100** | All sections |
| **IMO ISM Code** | Vessel Information |
| **ISO 8601** | Times, Dates and other temporal definitions within all sections |
| **IMO SOLAS Convention** | |
| **IALA Guide to VTS** | Vessel Traffic Service Information |
| **International Harbour Masters' Association (IHMA)** | Reports and Documentation, Services |
| **IMO International Convention on Load Lines.** | |

## Measurements and Datums

The diagram below shows the relationship between the various terms and definitions used in the description of depths. Vessels engaged in port calls encounter depth measurements in a variety of forms and against multiple vertical datums. The diagram shown below is designed to make these measurements clear and to uniquely define the terms used.

Further information on the terms used here and the background to their definitions and use within Charts and Publications is contained in Admiralty publication NP100 The Mariner's Handbook and Admiralty Publications NP5011 and NP5012 which describe the symbols found within paper and ENC charts respectively.

Individual navigational charts will always contain definitions of which vertical datum is in use and the mariner is encouraged to use the diagram in conjunction with the appropriately scaled navigational chart when evaluating depth measurements and the calculation of under keel clearance.

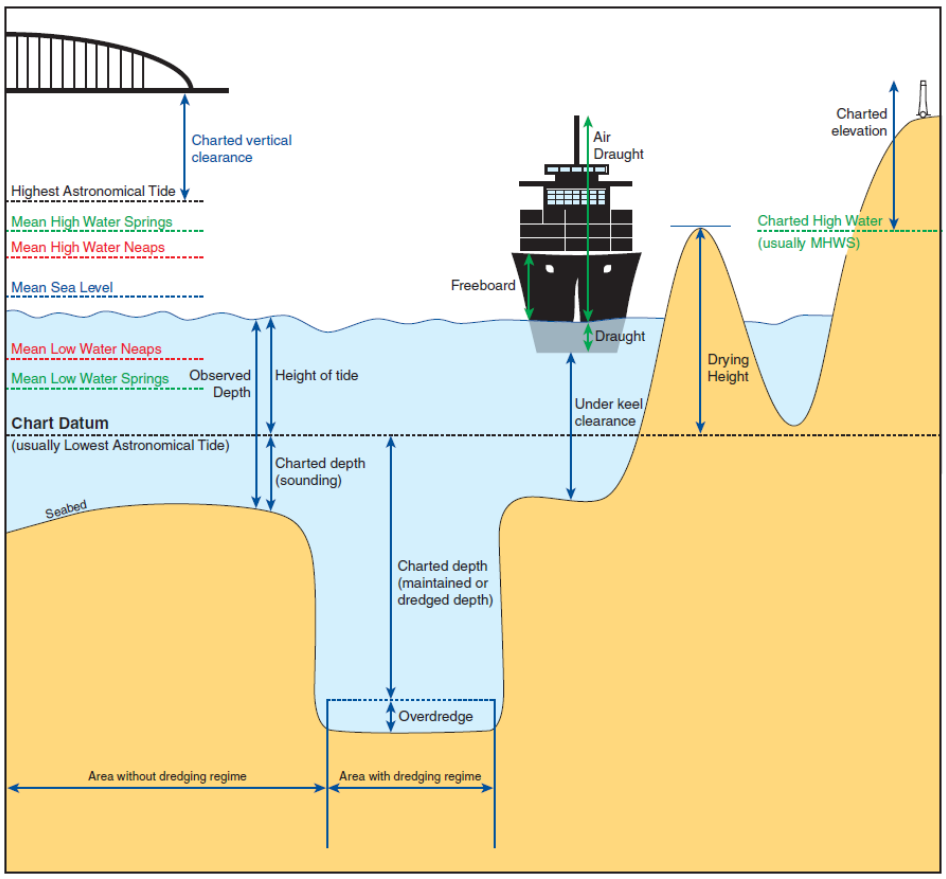


**Figure 1: Terms for Vertical Measurement of vessels, depths and elevations.**

## Standard Vessel Types.

The definitions below of standard vessel types are taken from the IHS "statcode" system for classifying vessels. This is the same system used when registering IMO numbers for individual vessels and is a comprehensive classification system used worldwide under the IMO SOLAS convention. A broad category is listed in bold with each specific vessel type listed beneath it.

**Liquefied Gas**

LNG Tanker
CNG Tanker
LPG Tanker
LPG/Chemical Tanker
LPG Barge, propelled
CO2 Tanker

**Chemical**

Molten Sulphur Tanker
Chemical Tanker
Parcels Tanker
Chemical Tanker Barge, propelled
Chemical/Products Tanker
Chemical/Products Tanker Barge, propelled
Wine Tanker
Vegetable Oil Tanker
Edible Oil Tanker
Beer Tanker
Latex Tanker
Fruit Juice Tanker

**Oil**

Shuttle Tanker
Crude Oil Tanker
Crude/Oil Products Tanker

Products Tanker
Tanker (unspecified)
Products Tanker Barge, propelled
Asphalt/Bitumen Tanker
Coal/Oil Mixture Tanker

**Other Liquids**
Water Tanker
Water Tanker Barge, propelled
Molasses Tanker
Glue Tanker
Alcohol Tanker
Caprolactam Tanker

**Bulk Dry**
Bulk Carrier
Bulk Carrier, Laker Only
Bulk Carrier (with Vehicle Decks)
Bulk Barge, propelled
Ore Carrier

**Bulk Dry / Oil**
Bulk/Oil Carrier (OBO)
Ore/Bulk/Products Carrier
Ore/Oil Carrier

**Self Discharging Bulk Dry**
Bulk Cargo Carrier, self discharging
Bulk Cargo Carrier, self discharging, Laker
Bulk Cargo Barge, self discharging, propelled

**Other Bulk Dry**
Cement Carrier
Bulk Cement Barge, propelled
Wood Chips Carrier, self unloading
Urea Carrier
Aggregates Carrier
Limestone Carrier
Refined Sugar Carrier
Powder Carrier

**General Cargo**
General Cargo Ship (with Ro-Ro facility)
Open Hatch Cargo Ship
General Cargo/Tanker (Container/oil/bulk - COB ship)
General Cargo/Tanker
General Cargo Ship
General Cargo Barge, propelled
Palletised Cargo Ship
Deck Cargo Ship

**Passenger/General Cargo**
General Cargo/Passenger Ship

**Container**
Container Ship (Fully Cellular)
Container Ship (Fully Cellular with Ro-Ro Facility)
Container Barge, propelled
Passenger/Container Ship

**Refrigerated Cargo.**
Refrigerated Cargo Ship

**Ro-Ro Cargo.**
Ro-Ro Cargo Ship
Rail Vehicles Carrier
Vehicles Carrier
Car Carrier
Container/Ro-Ro Cargo Ship
Landing Craft

**Passenger/Ro-Ro Cargo**
Passenger/Ro-Ro Ship (Vehicles)
Passenger/Ro-Ro Ship (Vehicles/Rail)
Passenger/Landing Craft

**Passenger**
Passenger/Cruise
Passenger Ship

**Other Dry Cargo**
Livestock Carrier
Barge Carrier
Barge Carrier, semi submersible
Heavy Load Carrier
Heavy Load Carrier, semi submersible
Yacht Carrier, semi submersible
Nuclear Fuel Carrier
Nuclear Fuel Carrier (with Ro-Ro facility)
Pulp Carrier

**Fish Catching**
Factory Stern Trawler
Stern Trawler
Trawler
Fishing Vessel

**Other Fishing**
Fish Factory Ship
Fish Carrier
Live Fish Carrier (Well Boat)
Fish Farm Support Vessel
Fishery Patrol Vessel
Fishery Research Vessel
Fishery Support Vessel
Seal Catcher
Whale Catcher
Kelp Dredger
Pearl Shells Carrier

**Offshore Supply**
- Crew/Supply Vessel
- Pipe Carrier
- Platform Supply Ship
- Anchor Handling Tug Supply
- Offshore Tug/Supply Ship

**Other Offshore**
- Offshore Support Vessel
- Diving Support Vessel
- Accommodation Ship
- Drilling Ship
- Pipe Layer Crane Vessel
- Pipe Layer
- Production Testing Vessel
- FPSO, Oil
- FPSO, Gas
- Well Stimulation Vessel
- Standby Safety Vessel
- FSO, Oil
- FSO, Gas
- Trenching Support Vessel
- Pipe Burying Vessel

**Research**
- Research Survey Vessel

**Towing/Pushing**
- Tug
- Pusher Tug

**Dredging**
- Bucket Ladder Dredger
- Cutter Suction Dredger
- Grab Dredger
- Backhoe Dredger
- Bucket Wheel Suction Dredger
- Suction Dredger
- Dredger (unspecified)
- Water Injection Dredger
- Bucket Hopper Dredger
- Grab Hopper Dredger
- Suction Hopper Dredger
- Trailing Suction Hopper Dredger
- Hopper/Dredger (unspecified)

**Other Activities**
- Hopper, Motor
- Stone Carrier
- Crane Ship
- Pile Driving Vessel
- Icebreaker
- Icebreaker/Research
- Cable Layer
- Cable Repair Ship
- Incinerator
- Waste Disposal Vessel
- Effluent carrier
- Fire Fighting Vessel
- Pollution Control Vessel
- Patrol Vessel
- Crew Boat
- Training Ship
- Utility Vessel
- Search & Rescue Vessel
- Pilot Vessel
- Salvage Ship
- Buoy Tender
- Buoy & Lighthouse Tender
- Lighthouse Tender
- Supply Tender
- Mooring Vessel
- Work/Repair Vessel
- Hospital Vessel
- Tank Cleaning Vessel
- Trans Shipment Vessel
- Anchor handling Vessel
- Rocket Launch Support Ship
- Log Tipping Ship
- Exhibition Vessel
- Theatre Vessel
- Mission Ship
- Bulk Dry Storage Ship
- Bulk Cement Storage Ship
- Mining Vessel
- Wind Turbine Installation Vessel
- Wind Turbine Installation Vessel (semi sub)
- Wind Turbine Vessel
- Bunkering Tanker
- Vessel (function unknown)
- Sailing Vessel

**Inland Waterways Tanker**
- Chemical Tanker, Inland Waterways
- Chemical/Products Tanker, Inland Waterways
- Oil Tanker, Inland Waterways
- Edible Oil Tanker, Inland Waterways
- Water Tanker, Inland Waterways
- Vegetable Oil Tanker, Inland Waterways

**Inland Waterways Dry Cargo/Passenger**
- Bulk Cement Carrier, Inland Waterways
- Container Ship (Fully Cellular), Inland Waterways
- General Cargo, Inland Waterways
- General Cargo/Passenger Ship, Inland Waterways
- Ro-Ro Cargo Ship, Inland Waterways
- Passenger/Ro-Ro Ship (Vehicles), Inland Waterways

Passenger/Ro-Ro Ship (Vehicles/Train), Inland Waterways
Cruise Ship, Inland Waterways
Passenger Ship, Inland Waterways

**Inland Waterways Other Non Seagoing**
Fishing, Inland Waterways
Research, Inland Waterways
Towing/Pushing, Inland Waterways
Dredging, Inland Waterways
Other Activities, Inland Waterways

**Non Merchant Ships**
Houseboat
Yacht
Yacht (Sailing)
Sail Training Ship
Crane Vessel, Naval Auxiliary
Crew Boat, Naval Auxiliary
Replenishment Dry Cargo Vessel
Hospital Vessel, Naval Auxiliary
Mooring Vessel, Naval Auxiliary
Repair Vessel, Naval Auxiliary
Training Ship, Naval Auxiliary
Research Vessel, Naval Auxiliary
Replenishment Tanker
Unknown Function, Naval/Naval Auxiliary
Diving Vessel, Naval Auxiliary
Tug, Naval Auxiliary
Salvage Vessel, Naval Auxiliary
Naval Small Craft
Boom defence Vessel
Degaussing Vessel
Minehunter
Minelayer
Minesweeper
Netlayer
Torpedo Recovery Vessel
Troopship
Munitions Carrier
Submarine Salvage Vessel
Aircraft Carrier
Command Vessel
Corvette
Destroyer
Escort
Frigate
Cruiser
Helicopter Carrier
Attack Vessel, Naval
Patrol Vessel, Naval
Torpedo Trials Vessel
Weapons Trials Vessel
Submarine Chaser
Torpedo Boat
Water Tanker, Naval Auxiliary
Logistics Vessel (Naval Ro-Ro Cargo)
Infantry Landing Craft
Landing Ship (Dock Type)
Tank Landing Craft
Submarine
Training Ship, Stationary
Accommodation Vessel, Stationary
Lightship
Museum, Stationary
Restaurant Vessel, Stationary
Radio Station Vessel
Casino, Stationary
Oxygenation Vessel
Unknown

**Non Propelled**
Bulk Aggregates Barge, non propelled
Covered Bulk Cargo Barge, non propelled
Bulk Cement Barge, non propelled
Fish Storage Barge, non propelled
General Cargo Barge, non propelled
Bitumen Tank Barge, non propelled
Trans Shipment Barge, non propelled
Water Tank Barge, non propelled
Hopper Barge, non propelled
Cement Storage Barge, non propelled
Chemical Tank Barge, non propelled
LPG Tank Barge, non propelled
Products Tank Barge, non propelled
Chemical/Products Tank Barge, non propelled
Crude Oil Tank Barge, non propelled
Open Bulk Cargo Barge, non propelled
Oil Storage Barge, non propelled
Bulk Dry Storage Barge, non propelled
Deck Cargo Pontoon, semi submersible
Jacket Launching Pontoon, semi submersible
Bucket Dredger Pontoon
Deck Cargo Pontoon, non propelled
Grab Dredger Pontoon
Suction Dredger Pontoon
Dredging Pontoon, unknown dredging type
Water-injection Dredging Pontoon
Crane Pontoon
Electricity Generating Pontoon, non propelled
Grain Elevating Pontoon, non propelled
Sheerlegs Pontoon
Desalination Pontoon, non propelled
Shopping Complex
Steam Supply Pontoon, non propelled
Car Park
Work/Maintenance Pontoon, non propelled

Pontoon (Function Unknown)
Inert Gas Processing Pontoon, non propelled
Jacket Launching Pontoon
Permanent Shore Facility

**Non Ship Structures**

Air Cushion Vehicle Passenger/Ro-Ro Ship (Vehicles)
Air Cushion Vehicle Passenger
Air Cushion Vehicle, work vessel
Wing In Ground Effect Vessel
Air Cushion Vehicle Patrol Vessel
Air Cushion Vehicle Crew Boat
Air Cushion Vehicle Research
Dock Gate
Floating Dock
Mechanical Lift Dock
Accommodation Platform, semi submersible
Drilling Rig, semi submersible
Diving Support Platform, semi submersible
Pipe layer Platform, semi submersible
Maintenance Platform, semi Submersible
Accommodation Platform, jack up
Crane Platform, jack up
Drilling Rig, jack up
Maintenance Platform, jack up
Supply Platform, jack up (Lift Boat)
Pumping Platform
Production Platform, semi submersible
Supply Platform, semi submersible
Crane Platform, semi submersible
Pipe layer Platform, jack up
Production Platform, jack up
Radar Platform
Mooring Buoy
Terminal Buoy
Linkspan/Jetty
Submersible
Underwater System