

HARBOUR MASTER DIRECTIONS

Sydney Harbour and Port Botany

In force from 15 February 2022



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DICTIONARY

AIS means Automatic Identification System

AMSA means Australian Maritime Safety Authority

Berths and Channels Document means the document regularly published on Port Authority website

Bunker or Bunkering means the transfer of oil or flammable/combustible liquid intended for the propulsion or the auxiliary operation of a vessel

CASA means the Civil Aviation Safety Authority

Combined Length means the distance between the foremost part of the foremost vessel and the aftermost part of the aftermost vessel of vessels engaged in pushing or towing

Daylight means the period between sunrise and sunset

Dangerous Goods has the same meaning as in the Ports and Maritime Administration Regulation 2021

Dangerous Goods Incident has the same meaning as in the Ports and Maritime Administration Regulation 2021

Dangerous Goods Management Guidelines for Ports in NSW means the guidelines published from time to time on Port Authority website

Ferry Service has the same meaning as in Passenger Transport (General) Regulation 2017 (NSW)

Harbour Master has the same meaning as in the Marine Safety Act 1998 (NSW)

Marine Incident has the same meaning as in the Navigation Act 2012 (Cth)

IMO means the International Maritime Organization

ISGOTT means the International Safety Guide for Tankers and Terminals published by OCIMF

Length means the distance between a vertical line passing through a point that is the foremost part of the bow and a vertical line passing through a point that is the aftermost part of the stern

OCIMF means the Oil Companies International Marine Forum

Pollution Incident has the same meaning as a reportable incident in the Marine Pollution Act 2012 (NSW)

Port Authority means Port Authority of New South Wales

Port Authority Website means <https://www.portauthoritynsw.com.au/>

Port Authority Vessel Booking System means Sydney Integrated Port System (ShIPS) or any replacement system implemented by Port Authority at a future date

Recreational Vessel means a vessel that is not for use in connection with a commercial, governmental or research activity (refer to the Navigation Act 2012 (Cth))

Shifting means removal of a vessel from original to new position along a continuous uninterrupted stretch of berth

SOLAS means the International Convention for the Safety of Life at Sea

Wind Speed means the 10-minute mean wind speed measured from the weather station at Fort Denison (Sydney) or Molineux Point (Port Botany), or from Port Authority's weather forecasting provider, as appropriate

1 INTRODUCTION

1.1 Harbour Master Directions

The Harbour Master for Sydney Harbour and Port Botany is authorised to issue directions in relation to a particular vessel or a particular class of vessels within the relevant port boundary. This publication contains the standing directions of the Harbour Master, which will remain in force until amended, cancelled, or superseded. Additionally, this document also contains general information on marine operational matters within Sydney Harbour and Port Botany that is considered relevant to port users.

These directions do not limit the power of the Harbour Master to give additional specific directions in any instance. The Master of any vessel within the port shall comply with these standing directions and any direction that may be given by the Harbour Master or person appointed to exercise the functions of the Harbour Master. A Master of a vessel who, without reasonable justification, refuses or fails to comply with a direction given by a Harbour Master may be found guilty of an offence.

Furthermore, a person who, without reasonable justification, obstructs a Harbour Master (or any person acting under the direction of a Harbour Master) exercising any function under the Marine Safety Act 1998 (NSW) may be found guilty of an offence.

Note: See Marine Safety Act 1998 (NSW) for more information.

1.2 Updates to the Harbour Master Directions

This publication is updated regularly, with the latest published version available on the Port Authority website, which will supersede any previous versions.

1.3 Disclaimer

The information contained in this publication has been compiled by Port Authority for use by port users. It is the responsibility of port users to ensure they comply with the directions and requirements within this document and any applicable laws and regulations. Nothing in this publication is intended to relieve any vessel, owner, operator, charterer, Master, or person directing the movement of a vessel from the consequences of any failure to comply with any applicable law or regulation, or of any neglect of precaution, which may be required by the ordinary practice of seamanship, or by the special circumstances of the case.

Information contained in this publication is based on information available as at the date of the document. Although every care has been taken to ensure that this information is correct, no warranty, express or implied, is given regarding the accuracy of all contents. Port Authority shall not be responsible, in law or otherwise, for any errors in, or omissions from, this publication of whatever nature and howsoever occurring, including any loss or damage resulting from or caused by any inaccuracy produced herein.

2 GENERAL

2.1 Incidents and emergencies

Port Authority of New South Wales provides a 24 hour emergency response for port related marine incidents for both Sydney Harbour and Botany Bay. Report port related marine incidents by radio to Sydney VTS on VHF Ch 12 (Botany) or VHF Ch 13 (Sydney).

Any incident resulting in a threat to either life or property should be reported immediately to Emergency Services by calling Triple Zero (000)

Incidents requiring a non-urgent response can be reported via:

Phone: +61 2 9296 4999 or

Email: enquiries@portauthoritynsw.com.au

Marine incidents

The Master or owner of a vessel involved in a marine incident must report the incident to Sydney VTS as soon as possible after becoming aware of the incident.

The Master or owner of a vessel involved in a marine incident must provide the information requested by the Harbour Master in respect to the marine incident.

A copy of an incident alert or notification form sent to AMSA will meet the requirement for notification to Sydney VTS.

Dangerous goods incidents

The responsible person for reporting a dangerous goods incident must report the incident to Sydney VTS as soon as possible after becoming aware of the incident.

Note: The responsible person for reporting a dangerous goods incident is set out in the Ports and Maritime Administration Regulation 2021 (NSW)

Pollution incidents

The Master of a vessel must report a pollution incident to Sydney VTS without delay.

Security incidents

All security incidents must be reported to VTS immediately. It is a breach of Australian Maritime Law to withhold any information in relation to security incidents.

2.2 Vessel Traffic Services

VTS authority

Port Authority is authorised by AMSA to operate Sydney VTS in accordance with IMO Resolution A.857(20) and IALA Guidelines and Recommendations.

Sydney VTS provides an Information Service (INS), Traffic Organisation Service (TOS), and Navigational Assistance Service (NAS). The services are provided 24 hours a day, 7 days a week, year-round.

Note: Refer to the Navigation Act 2012 (Cth) and Marine Order 64.

VTS area

Sydney VTS area is divided into two sectors (see Appendix 1):

- Sydney Harbour
- Port Botany.

Compulsory participation in VTS

Participation in Sydney VTS is compulsory for all vessels, other than those listed below, subject to any contrary order by the Harbour Master given to the Master or owner of the vessel declaring participation in VTS to be compulsory:

- vessel < 30m in Length*
- seaplane
- a vessel engaged in ferry service which is using an AIS to send and receive identifying information.

*A vessel engaged in towing or pushing, with a Combined Length \geq 30m, is required to participate in VTS.

VTS permissions

Participating vessels must seek permission from VTS to enter and depart from port boundaries, and to move or anchor within the VTS coverage area.

VTS reporting

Participating vessels must report to Sydney VTS when passing a designated reporting point in the VTS sector (see Appendix 3 and 5). The designated reporting points are indicated in the table below:

Table 1 – VTS designated reporting points

Location	Reporting Point	Position
Port Botany VTS sector	Henry Head	A line extending from Endeavour Lighthouse on Henry Head south – westwards to Inscription Point Light
	Molineux Point	A line extending southwards from Molineux Point to the No. 2 Beacon in the entrance channel
Sydney Harbour VTS sector	Line Zulu	A line extending between Outer North Head Light and Macquarie Light
	Junction Bell (Sea Buoy)	A line extending from the Middle Head Buoy through the Junction Buoy to the Lady Bay Buoy
	Bradleys Head	A line extending from Bradleys Head Light tower southeasterly through the safe watermark and then southeasterly to Point Piper
	Fort Denison	A line extending from Kurraba Point through Fort Denison to Mrs Macquarie's Point
	Longnose Point	A line extending between Manns Point and Longnose Point
Transiting VTS areas	Wedding Cake Island	A line extending east between Wedding Cake Island and the VTS limit

Communication

Contact details for Sydney VTS are noted in the below table:

Table 2 - VTS contact details

Call Sign	Sydney VTS
VHF	Ch 12 Port Botany VTS sector Ch 13 Sydney Harbour VTS sector
Email	mts@portauthoritynsw.com.au
Telephone	+61 (02) 9296 4999

Vessels must maintain a VHF radio watch on the relevant VHF channel for communication with VTS when navigating within the VTS area or when conducting operations in a berth or at an anchorage mentioned in the Berths and Channels document, unless otherwise authorised by the Harbour Master.

Standard Marine Communication Phrases (SMCP) should be adhered to as closely as possible in communications with VTS.

Navigation information broadcast

Sydney VTS regularly broadcasts the following information:

Table 3 - VTS broadcast schedule

Type of information	Time	VHF Ch
Navigation warnings, weather, tidal and shipping movement information	0005, 0205, 0405, 0605, 0805, 1005, 1205, 1405, 1605, 1805, 2005, 2205	12
Navigation warnings, weather, tidal and shipping movement information	0105, 0305, 0505, 0705, 0905, 1105, 1305, 1505, 1705, 1905, 2105, 2305	13
Coast Radio Broadcast	0736, 1736	16, 67

Navigation warning request and broadcast

A request may be made to Sydney VTS via VHF radio or telephone for a navigation warning to be broadcast. Contact details of the person making the request will be required.

In addition, a person/vessel requesting a navigation warning must:

- maintain a radio watch on VHF Ch 12 or 13 as appropriate
- if the requested broadcast relates to a vessel fitted with AIS, ensure that the AIS remains operational for the duration of the navigation warning
- ensure that VTS has up-to-date and accurate information relating to the requested broadcast.

2.3 Arrival at the port

A vessel required to participate in Sydney VTS must submit the following notifications to Sydney VTS before arrival:

Table 4 - VTS arrival notification

Timing	How to notify	Information
24 -12 hours before booked arrival time	Email	Pre-Arrival/Departure Declaration Form (Form 20)
2 hours from the pilot boarding ground	VHF radio Ch 12	Estimated time of arrival at pilot boarding ground
5 miles from the pilot boarding ground	VHF radio 12 or 13 as advised	Estimated time of arrival at pilot boarding ground

Note: Additional information may be requested from time to time, as determined by the Harbour Master or Sydney VTS.

A vessel's engines, thrusters, and steering gear must be tested at least 6 hours, but no more than 12 hours, before entering port boundaries and the outcome declared on the vessel's pre-arrival declaration.

2.4 Departure from the port

Vessel Masters should ensure that the vessel is ready in all respects to depart the berth at the 'booked time'. This includes all relevant formalities with the terminal and relevant agencies being completed prior to the 'booked time' to enable the ship's complement and the attending Pilot to prepare for departure manoeuvre.

The 'booked time' is defined as the time that the departure manoeuvre will commence. To assist with achieving port safety and efficiency outcomes, the services required to facilitate the on-time departure of the vessel must be in attendance at the vessel's location no later than the 'booked time'.

A vessel required to participate in Sydney VTS must submit the following notification to Sydney VTS before departure:

Table 5 – VTS departure notification

Timing	How to notify	Information
6 -12 hours before booked departure time for vessel $\geq 10.5\text{m}$ draught	Email	Pre-Arrival/Departure Declaration Form (Form 20) for under-keel clearance calculations

Note: Additional information may be requested from time to time, as determined by the Harbour Master or Sydney VTS.

2.5 Draft, trim, and propeller immersion

For vessels requiring Pilot or vessels with a Master who is the holder of a relevant Marine Pilotage Exemption Certificate, unless otherwise authorised by the Harbour Master, the following conditions apply:

- propeller to be fully immersed
- draft forward to be a minimum 2% of vessel Length
- trim must not exceed 2% of the vessel Length
- trim must not be by the head.

2.6 Pilotage

Pilotage provider

Port Authority is the pilotage provider in Sydney Harbour and Port Botany.

Compulsory pilotage

Pilotage is compulsory in Sydney Harbour and Port Botany in respect to all vessels, other than those listed below unless otherwise authorised by the Harbour Master:

- vessel with a Master who is the holder of a relevant Marine Pilotage Exemption Certificate
- vessel with a Master who is the holder of a relevant Certificate of Local Knowledge
- vessel < 30m in Length*
- seaplane
- recreational vessel**
- vessel in respect of which an order is in effect exempting it from pilotage.

*A vessel engaged in towing or pushing, with a Combined Length $\geq 30\text{m}$, is not exempt from pilotage.

** Foreign vessels and regulated Australian vessels will not be considered recreational vessels in relation to compulsory pilotage.

Pilot boarding ground

The pilot boarding ground is located within the Port Botany and Sydney Harbour port limits. Port Botany pilot boarding ground is the primary boarding ground and is used for both Sydney Harbour and Port Botany unless otherwise authorised by the Harbour Master.

Table 6 – Pilot Boarding Ground coordinates

Pilot boarding ground	Position
Port Botany	4.15 nautical miles east of Cape Solander 34° 01.02'S 151° 18.88'E
Sydney Harbour	4 nautical miles east of Hornby light 33° 50.05'S 151° 21.68'E

Pilot transfer arrangements

Pilot boarding arrangements must be rigged in accordance with SOLAS Regulation V/23 and IMO Resolution A1045(27), including the manropes unless otherwise agreed with the attending pilot.

Master - Pilot information exchange

The Master and Pilot must exchange information in accordance with IMO Resolution A.960(23).

Manning during pilotage

During pilotage, the Master, one Deck Officer, and one helmsman must be in attendance on the bridge, unless otherwise agreed with the attending pilot.

During mooring operation, one qualified deck officer must attend each mooring station onboard, unless otherwise agreed with the attending Pilot.

Certificate of Local Knowledge

Unless the Harbour Master directs otherwise, Certificates of Local Knowledge are required for Masters of commercial vessels with Length between 30-80m.

Information about applications for a Certificate of Local Knowledge is available on the Port Authority website.

Note: Refer also to the Marine Safety Act 1998 (NSW) Marine Safety Regulation 2016 (NSW), and the NSW Marine Pilotage Code.

Pilotage Exemption Certificate

The Marine Pilot Exemption Certificate is designed for Masters of vessels with Length greater than 80m, which is beyond the limitations of a Certificate of Local Knowledge.

Information about applications for a pilotage exemption certificate is available on request from Port Authority.

Note: Refer also to the Marine Safety Act 1998 (NSW), Marine Safety Regulation 2016 (NSW), and the NSW Marine Pilotage Code.

2.7 Towage

Towage requirements

A vessel must use the number and type of tugs set out in the Towage Tables published on the Port Authority website unless otherwise authorised by the Harbour Master.

Ship Masters should be aware that the tugs used in Sydney Harbour and Port Botany are rated up to 70 tonnes bollard pull capacity. Tug positioning plans should be in accordance with the vessel's Safety Management System and should account for the bollard pull capacity of the allocated tugs.

Towage requirements for other berths, areas, or operations

For vessels with a displacement of 7,500 tonnes or more, towage requirements for berths, areas, or operations not specified in this document will be assessed in consultation with the Harbour Master.

Use of a licenced towage provider

Vessels with a displacement of 7,500 tonnes or more, which requires pilotage and the use of tugs, must use tugs operated by a towage provider who is the holder of an unrestricted towage licence issued by the Port Authority.

Bow thruster assessment

A compulsory piloted vessel bow thruster will be assessed and approved at regular intervals to determine its suitability for the port operating environment and, hence, the most suitable towage allocation requirements. The assessment will be noted through the Port Authority Vessel Booking System, and any assessment will be conducted in accordance with the Port Authority procedures.

Bow thruster must be fully immersed to be considered operable and efficient.

Classification of tugs

The harbour tugs are classified in accordance with the table below:

Table 7 - Classification of tugs

Class of tug	Type of propulsion	Minimum bollard pull capacity (tonne) ahead or astern
Z	Omnidirectional	≥ 55
A	Omnidirectional	≥ 45 and < 55
B	Omnidirectional	≥ 30 and < 45
C	N/A	≥ 10 and < 30

2.8 Escort of vessels

All piloted vessels >100m Length and all piloted tankers, must use an escort vessel provided by the Port Authority when transiting within port limits unless otherwise authorised by the Harbour Master.

All vessels, including recreational vessels, must not pass between a vessel being escorted and the escort vessel.

All vessels, including recreational vessels, must keep at least 30m clear of a vessel being escorted.

2.9 Ship-carried tenders

The following requirements apply for operations involving ship-carried tenders:

- Sydney VTS must be notified of the tender operation in advance
- all tender operations must comply with IMO Circular MSC 1/Circ. 1417
- tender operations and bunker operations must not be conducted on the same side of a vessel simultaneously.

Ship-carried tenders are not permitted in Campbell's Cove or Sydney Cove.

2.10 Promulgated depths

For the latest information on berth dimensions and water depth at berths within Sydney Harbour and Port Botany, refer to the Berths and Channels document located on the Port Authority website.

3 PORT OPERATIONS

3.1 Dangerous goods

Dangerous goods must be managed and handled in accordance with the latest edition of the Ports and Maritime Administration Act, Ports and Maritime Administration Regulation, Port Authority Dangerous Goods Management Guidelines (available on the Port Authority website) and Australian Standard 3846 – 2005 The Handling and Transport of Dangerous Cargoes in Port Areas.

3.2 Tanker operations

All tanker operations must conform to the most recent edition of ISGOTT.

The completed Ship/Shore Safety Checklist, including the check for securing of sea connections and overboard discharges, must be confirmed by the Port Authority before the commencement of any cargo transfer.

Note: The confirmation by the Port Authority is typically made by a Port Officer attending the tanker or by Sydney VTS.

3.3 Mooring operations

It is the responsibility of the vessel Master and operator to ensure that the vessel mooring equipment has been inspected and is fully operational prior to berthing. Port Authority expects that the vessel maintains the correct standard of lines and that the crew attends to the tension of the lines whilst at berth.

Whilst the vessel is berthed, the crew should:

- inform VTS immediately if unable to maintain position alongside
- tend the lines on a regular basis and ensure appropriate tension
- do not leave the lines on a warping drum. Mooring lines should preferably be run directly from a winch drum and not turned up on ship bitts
- report all mooring system failures to VTS immediately

The Ship's Safety Management system should specify the quality standard, inspection, and maintenance regime of the mooring system in accordance with the industry best practices (see Mooring Equipment Guidelines by OCIMF).

A vessel must not be secured to any wharf, buoy, navigation aid, any part of a bridge, or any floating plant unless the owner or Master has obtained the permission of the relevant authority.

3.4 Anchoring

Sydney Harbour

The Master of any vessel participating in Sydney VTS must not anchor anywhere within port limits without the prior consent of the Harbour Master. The Harbour Master's consent to anchor is sought through Sydney VTS.

Designated anchorages are to be booked through the Port Authority Vessel Booking System. Bookings must be accompanied by an expected booking for removal, with a Pilot and one A class tug or higher selected in the expected booking. Sydney VTS will determine if the expected booking for removal will be used.

Information on designated anchorages is contained in the Berths and Channels document available on the Port Authority website.

A vessel using an anchorage must monitor its position and ensure it remains within the anchorage area.

A vessel using an anchorage must seek the consent of Sydney VTS before using propulsion, thrusters, or other manoeuvring systems whilst remaining at anchor.

Port Botany

The Master of any vessel must not anchor within any fairway or channel within port limits without authorisation by the Harbour Master. The Harbour Master's consent to anchor is sought through Sydney VTS.

There are no declared anchorages within Port Botany port limits.

3.5 Bunkering operations

The Master of a vessel participating in Sydney VTS and planning to receive bunkers must apply for a permit to Sydney VTS at least 24 hours in advance via the Port Authority Vessel Booking System unless otherwise authorised by the Harbour Master.

The Master of a vessel participating in Sydney VTS and planning to supply bunkers, must book the vessel movement and complete a dangerous goods notification in advance via the Port Authority Vessel Booking System in accordance with the Dangerous Goods Management Guidelines.

A bunker checklist, in accordance with the most recent edition of ISGOTT, must be completed before commencing bunker operations. The Port Authority may audit the bunker operation.

A vessel may supply bunkers in Sydney Cove during curfew hours provided it is servicing a vessel at the Overseas Passenger Terminal and does not swing within Sydney Cove.

All bunker operations must commence during daylight hours unless otherwise authorised by the Harbour Master.

For bunker operations at buoys or at anchor, the wind speed must be below 15 knots and the average swell height must be below 1m.

Bunkering must not take place during the loading or unloading of Class 1 Dangerous Goods cargo and before the commencement and during the handling of Class 5.1 Dangerous Goods cargo at the port facility at which the ship is berthed unless otherwise authorised by the Harbour Master.

Note: There may be additional requirements on bunker operations imposed by a terminal or other organisation.

3.6 Shifting along a berth

Requests to shift a vessel alongside a berth should be submitted to Sydney VTS at least 24 hours in advance via the Port Authority Vessel Booking System unless otherwise authorised by the Harbour Master. The following information should be provided at the time of application:

- reason for shifting
- distance to be shifted
- minimum under keel clearance at the time of the shifting
- lines service is to be booked if any mooring line is to be removed from a bollard
- shifting is booked via the Port Authority Vessel Booking System.

For any shifting, a vessel is to complete a risk assessment and seek approval from the terminal prior to shifting.

3.7 Diving operations

A person planning to conduct any of the below diving operations must seek approval from Sydney VTS at least 24 hours in advance unless otherwise authorised by the Harbour Master.

Table 8 - Diving application requirements

Diving operation	Application for approval
Diving within 100m of a fairway or channel within port limits	Port Authority website online application
Diving outside of 100m of a fairway or channel, where the diving operation may interact with a commercial vessel operation, anywhere within port limits	VHF radio, email, or telephone call to Sydney VTS
Diving associated with a disturbance of seabed anywhere within port limits	Port Authority website online application
Diving on the TSS Currajong wreck*	Port Authority website online application
Diving on a vessel alongside a designated berth within port limits	Work permit via Port Authority Vessel Booking System

* For diving on the Kurrajong wreck, approval is only provided for night-time diving when ferry services have ceased and when no shipping is scheduled in Sydney Harbour within one hour after the dive is planned to commence unless otherwise agreed with the Harbour Master in advance. As the shipping schedule frequently changes, the approval can usually only be provided immediately before the commencement of diving.

3.8 Disturbance of seabed

A person disturbing the seabed, pursuant to section 110 of the Ports and Maritime Administration Regulation 2021 (NSW), must seek permission from the Harbour Master via the application form on the Port Authority website.

3.9 Aircraft operations

The Harbour Master must be notified at least 5 days in advance of a planned aircraft operation involving interaction with a vessel or berth within the port boundaries, such as lifting of an object from a vessel or landing on a vessel. Any notification must include a copy of the permit from CASA authorising the conduct of the aircraft operation.

Note: A drone is considered an aircraft.

3.10 Unmanned and/or autonomous surface or underwater vessel

The Harbour Master must be notified at least 5 days in advance of a planned operation of an unmanned and/or autonomous surface or underwater vessel within port limits.

3.11 Emergency flare demonstration/testing

Sydney VTS must be notified at least 24 hours in advance of a planned demonstration or testing of emergency flares within port boundaries.

3.12 In-water hull cleaning requests

Given the absence of a finalised national standard and any approved in-water cleaning technology that is accredited to meet the national in-water cleaning guidelines, consistent with previous requests, in-water cleaning in NSW waters generally cannot be supported by Port Authority at this time.

3.13 Use of Exhaust Gas Cleaning Systems (Scrubber Systems)

The Port Authority allows the use of Exhaust Gas Cleaning Systems/Emission Abatement Equipment/Scrubbers, including open and closed loop systems, in accordance with the AMSA requirements.

3.14 Other work approval

The Master of a vessel participating in Sydney VTS planning to conduct any work onboard the vessel that could interface with the port or operations must obtain approval from Sydney VTS at least 24 hours in advance via the Port Authority Vessel Booking System. Such works include, but are not limited to:

- engine/propulsion/thrusters testing
- hot work
- launching of lifeboat/rescue boat
- fire-fighting system maintenance
- confined space entry
- compass adjustment/swing
- radar testing/maintenance
- rigging of overboard work platform
- tank washing and tank venting
- use of mobile lifting devices, including mobile cranes ashore
- painting
- watercraft attending vessel (other than bunkering)
- work that immobilises the ship*.

For each work being conducted, the Master must also seek approval from the relevant terminal or berth operator.

*Engine immobilisation is not permitted for vessels carrying IMDG Class 1, Class 5.1, or while loading Class 7 (see Ports and Maritime Administration Regulation 2021 [NSW], Part 7). The maximum duration of approval is twelve hours, after which a new permit will be required to be lodged.

4 SYDNEY HARBOUR



4.1 Berth requirements

Table 9 - Gore Cove

Requirement	Gore Cove 1
Maximum Length	265m unless otherwise authorised by the Harbour Master
Maximum draft	13.7m
Maximum beam	Vessels cannot pass a vessel berthed at Gore Cove 1 if the sum of the two beams exceeds 63.6m
Berthing configuration	Port side alongside
Arrival and transit to berth	<ul style="list-style-type: none"> Berthing during daylight hours only Pilot must be booked for boarding at Sydney pilot boarding ground between 30 minutes before sunrise and 1.5 hours before sunset.
Berthing for vessels with displacement >60,000 tonnes or a large tanker*	Tidal flow at Balls Head must not exceed 0.5 knots
Departure and transit from berth	<ul style="list-style-type: none"> Departure during daylight hours only Pilot must be booked for departure between 30 minutes before sunrise and 1 hour before sunset.
Departure for a large tanker* with draft ≤10m	Tidal flow at Balls Head must not exceed 0.7 knots
Departure for a large tanker* with draft >10m	Tidal flow at Balls Head does not exceed 0.5 knots
Mooring boats	Two mooring boats must be used for arrival and one for departure

* For these purposes, a large tanker is a tanker with Length>230m or beam > 40m.

Table 10 - Chowder Bay and Captain Cook Dry Dock

Requirement	Chowder Bay	Captain Cook Dry Dock
Maximum Length	By consultation	345m
Maximum draft	13.7m	11m
Maximum beam	N/A	37m
Berthing configuration	Starboard side alongside (unless otherwise authorised by the Harbour Master)	Head in (unless otherwise authorised by the Harbour Master)
Berthing	Daylight hours only. Pilot must be booked for boarding at Sydney pilot boarding ground between 30 minutes before sunrise and 1.5 hours before sunset	Daylight hours only. Pilot must be booked for boarding at Sydney pilot boarding ground between 30 minutes before sunrise and 1.5 hours before sunset
Unberthing	Anytime	Must be booked for 1 hour before sunset
Wind constraint	N/A	Vessels must only arrive or depart in Wind Speed <15 knots. Vessels with particularly high windage may be further restricted

Note: Movements to/from Captain Cook dry dock must involve liaison between the dock operator, towage provider and attending/duty Pilot in advance of the planned movement.

Table 11 - Overseas Passenger Terminal

Requirement	Overseas Passenger Terminal
Berthing configuration	Starboard side alongside, unless otherwise authorised by the Harbour Master. Harbour transit must be planned to ensure a vessel is secured at the terminal 30 minutes before curfew (see information on curfew below)
Berthing	<ul style="list-style-type: none"> A vessel must not berth with bow further south than -30m mark or with stern further south than - 15m mark Master must not single up moorings or disengage shore gangways unless agreed with the pilot Vessel thrusters must not be engaged unless agreed with VTS A vessel must not be swung around in Sydney Cove Mooring boat is required if mooring dolphin is used, or if mooring lines cross the Harbour Master steps.
Curfew	Monday to Friday: Vessels must not conduct berthing/unberthing operations at the Overseas Passenger Terminal between 0645 - 0930 and 1630 - 1845

Table 12 – Glebe 7 and 8

Requirement	Glebe 7 and 8
Berthing and unberthing	<ul style="list-style-type: none"> During berthing and unberthing at Glebe 8, a vessel at Glebe 7 must maintain 70m clearance to the vessel at Glebe 8 during the manoeuvre. This may require the vessel at Glebe 7 to temporarily relocate during the manoeuvre. Once the manoeuvre is completed, the distance between the vessels at Glebe 7 and 8 may be reduced to 20m If the vessel berthing or unberthing at Glebe 8 is using two A-class tugs, Glebe 7 must be clear of any vessel If a vessel at Glebe 7 is scheduled to depart within 4 hours, a vessel arriving at or departing from Glebe 8 must wait until the vessel at Glebe 7 has departed. If a vessel at Glebe 7 is scheduled to depart after 4 hours or more, the vessel at Glebe 7 must relocate to allow a vessel to arrive to or depart from Glebe 8 If a vessel at Glebe 7 must relocate to allow for a vessel to arrive at Glebe 8, the costs associated with the relocation (pilotage, tugs, site occupation and lines boat) must be borne by the vessel arriving at or departing from Glebe 8.

4.2 White Bay and Glebe Island berth additional information

Information including noise management, environmental approvals, load limits, and mobile crane applications can be found on the Port Authority website.

Utilities such as power and freshwater are not available at Glebe Island 1-2 and White Bay 3-4 berths.

For all charges for usage of Glebe Island and White Bay berths refer to the Port Authority website.

Anyone who requires access to Glebe Island or White Bay precinct area must have completed a relevant Port Authority site induction.

4.3 Air draft requirement for passing under Sydney Harbour Bridge

A vessel must maintain a minimum 2m clearance from the lowest point of the Sydney Harbour Bridge, considering the location of the gantry if applicable (see Appendix 2).

4.4 Under keel clearance (UKC) requirement

During transit within Sydney Harbour port limits, UKC must be a minimum of 10% of the vessel deepest draft. In a berth box, UKC must be a minimum of 0.5m unless otherwise authorised by the Harbour Master.

Certain vessels may be subject to additional UKC requirements, as determined by the Harbour Master.

4.5 Scheduling priority for arrivals at White Bay Cruise Terminal

An inbound vessel scheduled for arrival at the White Bay Cruise Terminal will be given priority for pilot boarding over a vessel scheduled for arrival at the Overseas Passenger Terminal in the following circumstances:

- their scheduled pilot boarding times are within 30 minutes from each other
- for a vessel scheduled for White Bay Cruise terminal, there are no tidal restrictions for passing under Sydney Harbour Bridge
- there are no curfew restrictions for the vessel at the Overseas Passenger Terminal.

4.6 Tug and barge operations

A vessel engaged in towing anywhere west of Bradley's Head must lash the tow alongside while navigating unless otherwise authorised by the Harbour Master.

Upon arrival, it is preferable to lash the barge prior to passing the Sea Buoy. If sea conditions do not permit, the tug shall tow the barge astern at the shortest length safely permissible until secured alongside the barge before transiting west of Bradley's Head.

If entry is via the Western Channel securing to the barge shall be conducted in the vicinity of Taylors Bay.

If entry is via the Eastern Channel securing to the barge shall be conducted in the vicinity of Watsons Bay.

The Master must notify VTS as to which channel will be used for transiting the harbour prior to entering port limits.

4.7 Prohibited areas for general navigation

The areas outlined in Appendix 3 are prohibited from general navigation unless otherwise authorised by the Harbour Master. Naval waters are declared under the following legislation:

- Control of Naval Waters Act 1948 - Proclamation
- Control of Naval Waters Act 1918
- Control of Naval Waters Regulation 2015.

Naval waters are also marked on the relevant nautical chart.

As referred to above, general navigation is taken to exclude navigation with the following vessels:

- vessel under pilotage
- vessel providing services to a vessel under pilotage (e.g., a tug or a lines boat)
- vessel with permanent moorings in the prohibited area
- vessel approved by Transport for NSW (e.g., a ferry or taxi boat with the appropriate approval)
- a vessel navigating the south-eastern part of the prohibited area at Glebe Island while transiting between Johnstons Bay and Blackwater or Rozelle Bay
- a vessel operated by the
- Port Authority.

The master of a vessel navigating in the area prohibited for general navigation must keep well clear of any ship in the area unless otherwise authorised by the Harbour Master.

5 PORT BOTANY



5.1 Under keel clearance (UKC) requirement

Table 13 - Port Botany static UKC requirements

Location	UKC
Transit between Cape Banks and swing basin	10% of maximum vessel draft
Transit in Brotherson Dock	1.0m
Transit in Hayes Dock	1.0m
Berth boxes Brotherson Dock, Hayes Dock, Bulk Liquid Berths	0.5m
Berth boxes Kurnell Berths 1 and 2	0.8m
Berth box Kurnell Berth 3	1.0m

Vessels with a draft in excess of 10.5m will be subject to the Port Authority operated predictive under keel clearance system (DUKC) and in such cases static requirements for transits will not be applicable.

Certain vessels may be subject to additional UKC requirements, as determined by the Harbour Master.

5.2 Berth requirements

Table 14 - Brotherson Dock (excluding berth 10) and Hayes Dock berths

Requirement	Brotherson Dock Berths 11, 12	Brotherson Dock Berths 6, 7, 8, 9	Hutchison Dock Berths 1, 2
For vessels <310m during berthing only, minimum distance to another vessel at berth	20m	20m	20m
For vessels >310m during berthing and unberthing, minimum distance to another vessel at berth	30m	30m	30m

Note: After berthing, the minimum distance between vessels may be reduced in exceptional circumstances as determined by the Harbour Master.

Due to the shape and size of the berth pocket, location of adjacent pilot boat jetty, and cable laying dolphins, Brotherson Dock 10 has additional requirements when BD 11 is occupied as per the table below:

Table 15 - Brotherson Dock 10 berthing requirements with BD11 occupied

Side Alongside		Requirement 1	Requirement 2	Requirement 3
Starboard		Bow mark not to go past 32m mark	If either vessel beam exceeds 33m then clearance between vessels on berthing/unberthing to be no less than 30m	Preference is for the berth to be clear of cranes. If this is not possible, Terminal to confirm with VTS and Duty Pilot proposed crane stowage prior to vessels arrival
Port	Beam <33m and draft of arriving vessel is <10.0m	Stern mark of arriving vessel not to go past 32m mark	Nil	Nil
	Beam > 33m or draft of arriving vessel is >10.0m	Distance astern is to be 60m and clearance ahead to be 30m whilst berthing	Once alongside the vessel can be shifted with the assistance of tugs and Pilot to bring the stern as far as the 32m mark. Terminal to confirm with VTS and Duty Pilot proposed crane stowage prior to vessels arrival.	Nil

Table 16 - Kurnell berth 1 and 2

Requirement	Kurnell 1	Kurnell 2
Maximum vessel Length	257m	200m
Berthing configuration	Port side alongside	Starboard side alongside
Daylight berthing for vessels draft <9.8m or displacement <35,500 tonnes	<ul style="list-style-type: none"> Anytime Vessel stern must not be positioned south of 23m mark 	Anytime
Daylight berthing for vessels draft >9.8m or displacement >35, 500 tonnes	<ul style="list-style-type: none"> Pilot must board between 90 and 30 minutes before HW/LW Vessel stern must not be positioned south of 23m mark. 	Pilot must board between 90 and 30 minutes before HW/LW
Daylight berthing for vessels Length 230m – 240m	<ul style="list-style-type: none"> Pilot must board between 90 and 30 minutes before HW/LW Wind Speed must be <20 knots Vessel stern must not be positioned south of 23m mark. 	Not permitted
Daylight berthing for vessels with Length 240 - 257m	<ul style="list-style-type: none"> Pilot must board 1 hour before HW/LW Vessel stern must not be positioned south of 30m mark. 	Not permitted
Night berthing	<ul style="list-style-type: none"> Only for vessels with a Length < 200m Pilot must board 1 hour before HW/LW Wharf must be fully illuminated Kurnell 1 sector light must be operational No 2 and 3 swamp line pimple buoys at Kurnell 3 must be clear of the swing area. If the buoys are not clear of swing area, a lines boat must be available to indicate their positions. 	<ul style="list-style-type: none"> Only for vessels with a Length < 200m Pilot must board 1 hour before HW/LW Wharf must be fully illuminated No 2 and 3 swamp line pimple buoys at Kurnell 3 must be clear of the swing area. If the buoys are not clear of swing area, a lines boat must be available to indicate their positions.
Unberthing	Anytime	Anytime
Swell during berthing	Maximum 1m at Captain Cook Buoy	Maximum 1m at Captain Cook Buoy

Note: Daylight berthing pilot boarding time to be no earlier than 30 minutes before sunrise and/or a minimum of 90 minutes before sunset, for an inbound vessel.

Table 17 - Kurnell Berth 3

Requirement	Kurnell 3
Maximum vessel Length	280m
Berthing configuration	Head out
Daylight berthing	<ul style="list-style-type: none"> Pilot boarding between LW and two hours before HW Pilot boarding no earlier than 30 minutes before sunrise or no later than 3 hours before sunset, as applicable.
Night berthing	Not permitted
Unberthing	Must commence minimum 90 minutes before sunset
Swell during berthing	Maximum 1m at the berth

Table 18 - Bulk Liquids Berth (BLB) 1 and 2

Requirement	BLB 1	BLB 2
Maximum vessel Length	230m (unless otherwise authorised by the Harbour Master)	270m
Maximum vessel displacement	90,000 tonne (unless otherwise authorised by the Harbour Master)	150,000 tonne
Berthing configuration	Port side alongside	Port side alongside
Mooring boat	<ul style="list-style-type: none"> One mooring boat for arrival and departure for a vessel < 100m Two mooring boats for arrival and departure for a vessel ≥ 100m. 	

5.3 Cranes at container berths

For arrival and departure at a container berth, the following notification requirements apply in relation to cranes at the berth:

- for arrival, the crane operator/stevedore must confirm to Sydney VTS via VHF or phone that cranes are positioned boom up. The confirmation must be received before the vessel passes Molineux Point
- for arrival and departure, cranes must be unmanned
- for arrival, the cranes must be stationary until the vessel has reported all fast to Sydney VTS
- for departure, the cranes must be stationary until the vessel is clear of the berth box and has passed the berth it occupied
- for departure from Brotherson Dock Berth 6, there must be a minimum 1m clearance between a vessel highest point and a crane boom lowest point.

See Appendix 4 for crane positioning during berthing and unberthing.

Note: Sydney VTS may instruct a vessel to abort its arrival or departure manoeuvre if the above requirements are not met.

5.4 Adverse weather

Where adverse weather is predicted, the Harbour Master may direct vessel Masters to take precautionary action, including the following:

- lower the anchor
- run additional mooring lines
- stand-by the engines
- deploy storm lines
- stop cargo operations
- employ tug assistance
- depart from the port.

Such directions are, wherever possible, made following consultation with relevant stakeholders and by using a risk-based approach. Some of the factors considered but are not limited to, predicted average wind speed, maximum expected wind gusts, exposure of berth to the wind, and vessel windage area.

5.5 Prohibited areas for general navigation

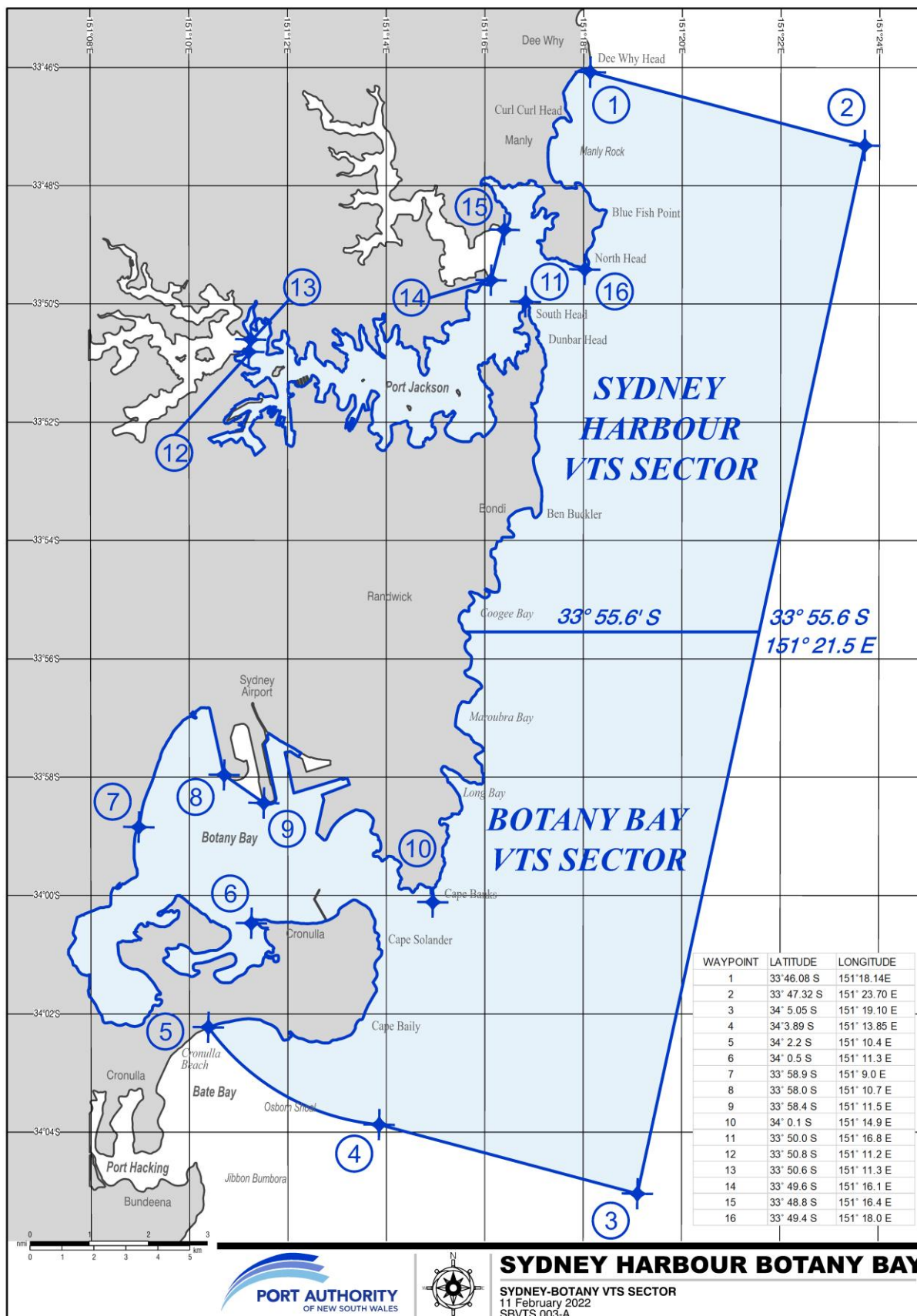
The area outlined in Appendix 4 is prohibited from general navigation unless otherwise authorised by the Harbour Master.

General navigation excludes navigation with the following vessels:

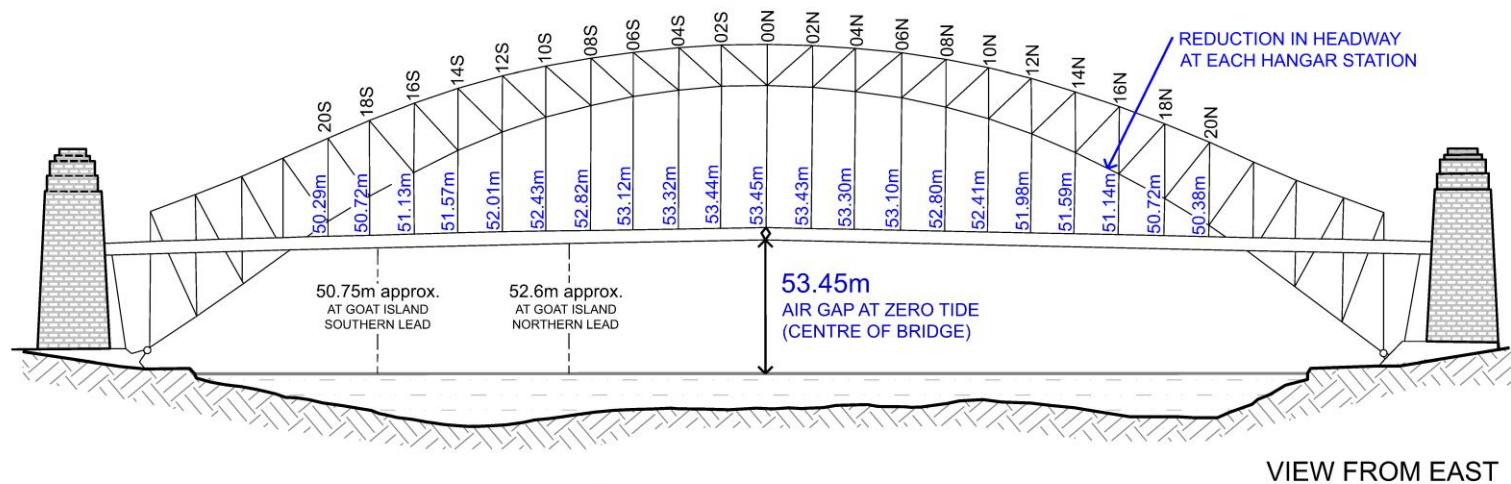
- vessel under pilotage
- vessel providing services to a vessel under pilotage (e.g., a tug or a lines boat)
- vessel with permanent moorings in the prohibited area
- Port Authority vessel.

6 APPENDICES

6.1 Appendix 1: VTS Area



6.2 Appendix 2: Air Draft Requirements Sydney



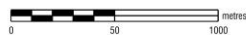
NOTES:

Air Gap/Clearance has been compiled from various survey sources.

Measurements by RMS Survey Section on 12/06/2009 at 8°C, remain lowest measured heights.

Further tolerance has been allowed for cooler temperatures headway will vary due to expansion/contraction, the air gap shown allows some tolerance for lower temperatures

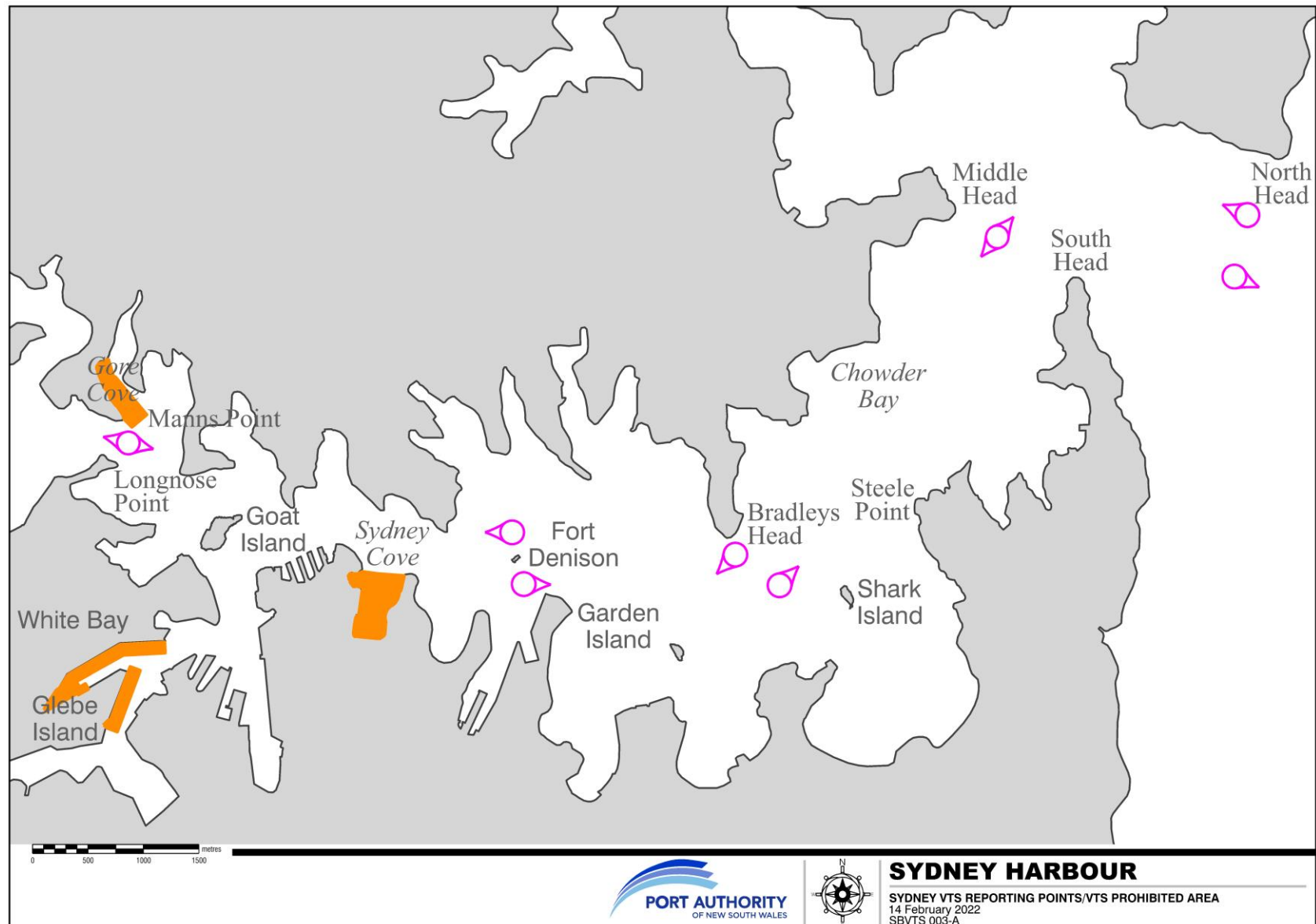
Air Gap is measured to the underside of the gantry rail



SYDNEY HARBOUR

SYDNEY HARBOUR BRIDGE AIR GAP AT ZERO TIDE
11 February 2022
201910_SHB_AIRGAP

6.3 Appendix 3: Sydney Harbour Prohibited Areas for General Navigation and Reporting Points



6.4 Appendix 4: Port Botany Crane Positioning at Container Terminals

Cranes at Container Berths

Crane positioning during berthing and unberthing

Crane operators must ensure that cranes are positioned well clear of vessels during berthing and unberthing.

As a minimum, the following requirements apply in relation to cranes at the berth:

For vessels with a Length of 165m or less, the closest crane leg must be:

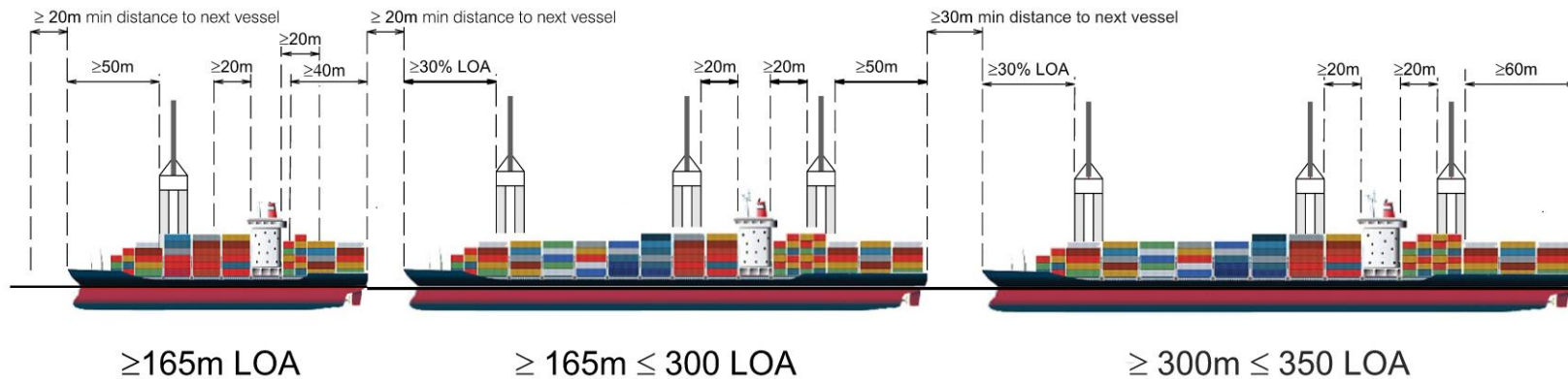
- no less than 20m clear of the forward and aft most part of the vessel's bridgewing
- no less than 50m from the vessel's bow.
- no less than 40m from the vessel's stern.

For vessels with a Length of more than 165m and less than 300m, the closest crane leg must be:

- no less than 20m clear of the forward and aft most part of the vessel's bridgewing
- no less than 30% of the vessel length from the vessel's bow
- no less than 50m from the vessel's stern.

For vessels with a Length of 300m or more, but less than 350m, the closest crane leg must be:

- no less than 20m clear of the forward and aft most part of the vessel's bridgewing
- no less than 30% of the vessel Length from the vessel's bow
- no less than 60m from the vessel's stern



Cranes must be positioned as close to midship of the vessel as possible.

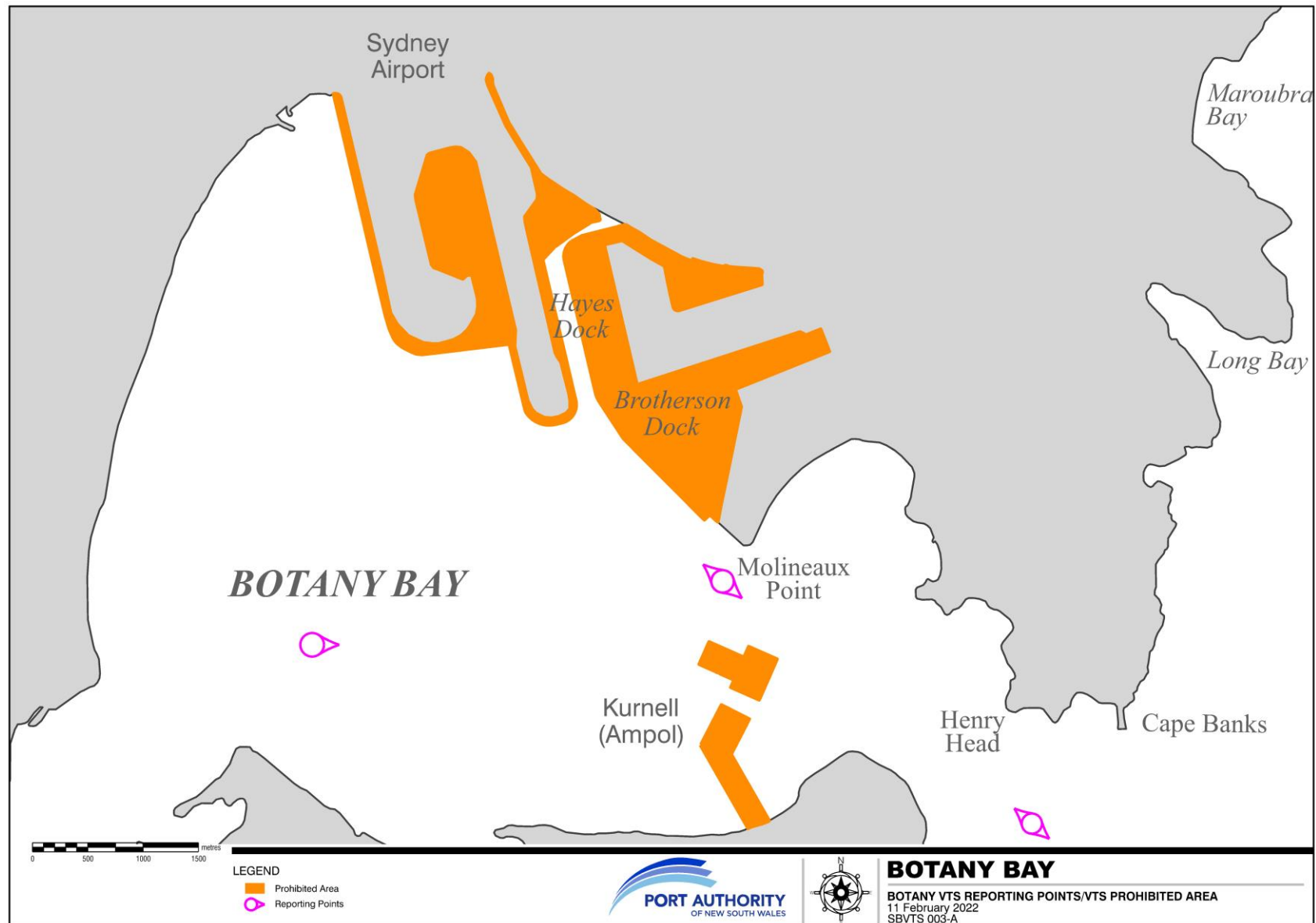
Cranes must be minimum 30m clear of the bow and stern position of the berthing/departing vessel.



CRANE POSITIONING

CRANE POSITIONING AT BERTHING/UNBERTHING
11 February 2022
SRGP239E

6.5 Appendix 5: Port Botany Prohibited Areas for General Navigation and Reporting Points



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