AusTides Install and Help Manual

AHP14 | 2026

SURVEYING OUR WATERS
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Australian Government
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AUSTRALIAN HYDROGRAPHIC OFFICE

Contents

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1. About AusTides

1.1 Copyright

Most predictions in this publication are produced under contract for harbour authorities by the National Operations Centre (NOC) Tidal Unit, Australian Bureau of Meteorology (BOM).

Copyright for all secondary ports and the following standard ports is reserved by the AHO: Port Moresby, Alotau (Milne Bay), Lae, Dregerhafen, Madang (Nagada Harbour), Wewak, Seeadler Harbour, Rabaul, Anewa Bay, Hoiniara, Norfolk Island, Ince Point, Turtle Head, Bugatti Reef, Stanley, Yampi Sound (Koolan Island), Cape Voltaire, and Cocos Islands. Copyright for tidal stream predictions for The Rip is reserved by Cardno Pty Ltd.

Secondary ports are predicted using the Harmonic Constants. The source of this information for each port is available on the "*Source*" tab within the application.

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1.2 Important Notice

This publication includes all significant tidal information obtained by the AHO at date of compilation. Significant information is updated by Australian Notices to Mariners (NtM). All reasonable efforts have been made to ensure the accuracy and completeness of the information, including third party information, incorporated in this publication. The AHO regards third parties from which it receives information as reliable, however the AHO cannot verify all such information and errors may therefore exist. Where possible, indications regarding the reliability of information are noted or symbolised in the publication.

Users should familiarise themselves with the meaning of any notes or symbols. The AHO does not accept liability for errors in third party information or the inappropriate use of this publication.

The local time and daylight savings predictions for the standard ports and tidal streams are official predictions and can be used as an official navigational publication. They are identical to those published in the printed version of the Australian National Tide Tables.

The predictions for standard ports in Zulu/Universal Time (UT) time are conversion of predictions from local to Zulu time for consistency. All predictions for standard ports in Zulu time are short of predictions on the last day of the year for the length equivalent to the time zone kept due to the time conversion.

All of the predictions for the secondary ports are calculated by the software using data of variable quality. All of the secondary port predictions provided are more accurate than the manual methods described in the Australian National Tide Tables. If in any doubt, the mariner should seek local knowledge to ascertain safe navigation.

As predictions are given for average meteorological conditions it follows that when conditions are not average the actual tides may differ from those predicted. Under extreme conditions these differences can be very large. The effects of varying meteorological conditions are discussed in section 3.6 "Meteorological Effects on Tides".

Tides and Geodetics Control Section of the AHO should be notified of any conspicuous discrepancies between the predicted and observed tides at tides.support@defence.gov.au.

1.3 What's New?

AusTides 2026 contains 91 standard ports, 25 quasi-standard ports, 8 tidal stream ports and over 700 secondary ports from the Australian National Tide Tables 2026. It also includes 28 secondary ports from the Solomon Islands National Tide Tables 2026

Two quasi-standard and 46 secondary ports have been newly added since the 2025 edition.

NB

1) To best view the Tidal Stream diagrams, the screen resolution must be set to 1024 X 768 or higher.

2) Application assumes that the computer is running in Local Standard Time.

2. Installation and Updating

2.1 How to Install AusTides on Windows 10/11

Download *AusTides Setup 2.1.1.zip* from the AHO website. Then, extract the ZIP folder's contents and run the installer executable (*AusTides Setup 2.1.1.exe*). Select *Next* when prompted by the installer, and let it run uninterrupted. The installer window will close automatically when the app is ready for use. A shortcut to AusTides, with the AHO logo as its icon, will appear on the desktop. Click on it to launch the app.

2.2 How to Install AusTides on MacOS

For Apple computers please download *AusTides-2.1.1.dmg*. Once downloaded, open the DMG file and move the installer app into the Applications folder. Click on the installer to run it, and select *Next* to any prompts it raises. If clicking the installer throws the error "cannot be opened because its developer cannot be verified", right-click it and select *open.* The installer window will close automatically when the app is ready for use.

2.3 How to Install AusTides on Linux

The Linux installer, *AusTides-2.1.1.AppImage*, requires FUSE to run correctly. To install FUSE, open the terminal and run the command "*sudo apt-get install fuse*". This step may require superuser privileges.

Once FUSE is installed, the AppImage file can be marked as an executable and run; superuser privileges are *not* required for the AusTides installer to function. Follow the installer's prompts for file paths. The app will be ready for use, when the installer window closes automatically.

Please report any installation issues to tides.support@defence.gov.au, with screenshots if required.

2.4 Updating AusTides

AusTides data is maintained by updates which are released as new information becomes available.

AusTides data updates are cumulative so the most recent data update will include all previously published data updates for that AusTides edition.

For example, data update 3 for the 2022 edition of AusTides will include updates 1, 2 and 3. Data Updates are released as free downloads on the 'AusTides Data Updates' page of the AHO website.

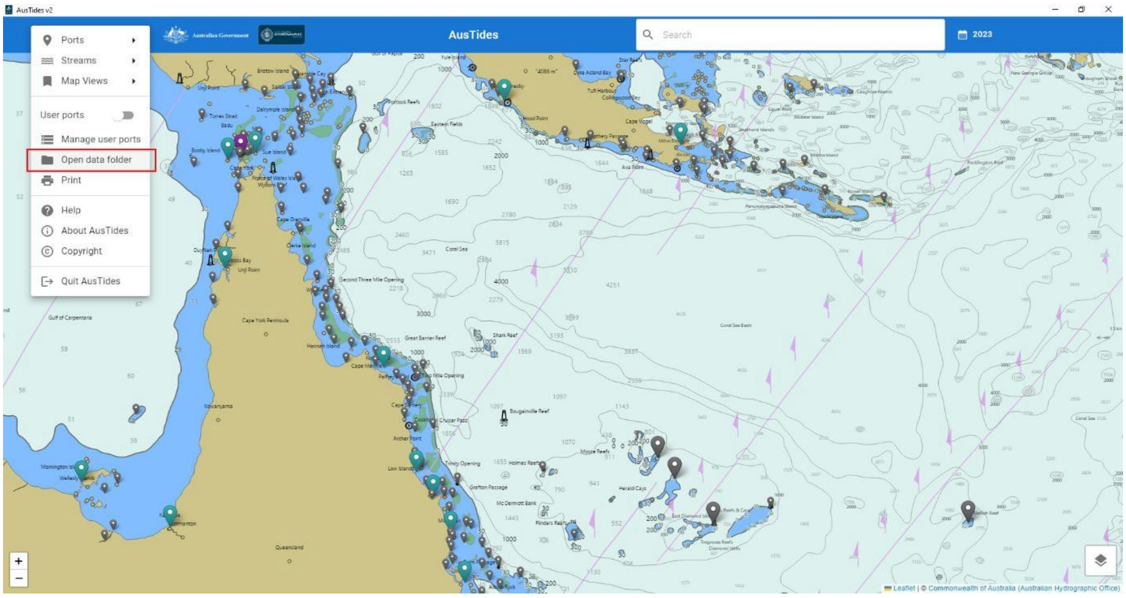
New editions of AusTides application may be released occasionally to update and improve functionality.

When released, data updates and new editions of AusTides are promulgated in fortnightly Australian Notices to Mariners and in eNotices, the free Australian Notices to Mariners email subscription service.

AusTides includes an automatic data update feature which works when AusTides is used on a viewing device connected to the Internet. Each time AusTides is started up, if connected to the Internet, it will check the AHO website AusTides Data Updates page for new data updates and automatically install them. This feature does not automatically download and install a new edition of the AusTides Application.

If AusTides is used on a viewing device not connected to the Internet, users should download data updates themselves from the AusTides [Data Updates]page.

Open the AusTides application and select the drop-down menu from the upper left-hand corner. Choose "Open data folder", as highlighted in red in the screenshot below. The file location of AusTides' data will open; please close the AusTides application now. Replace the existing data with the updated version, and then close the file location. When AusTides is next launched, the data update will take effect.



If a new edition of AusTides Application is released, the latest edition will be published and available for download from the AHO website [Product Downloads] page.

To be notified when AusTides data updates and new editions of the AusTides Application are released, the AHO recommends subscribing to [eNotices] and registering for 'Australian Hydrographic Publications'.

2.5 New Releases of AusTides

AusTides is released annually in October and provides tidal predictions for the current and following calendar year. For example, AusTides 2026 includes AusTides 2025 and 2026 editions, which cover tidal predictions for calendar years 2025 and 2026.

3 General Information

3.1 What is AusTides?

AusTides is the official tidal prediction software developed by the Australian Hydrographic Office. It provides accurate tide and tidal stream data for Australian and international waters, supporting safe navigation and maritime operations. Used by mariners, port authorities, and coastal planners, AusTides delivers daily, monthly, and annual tide tables, chart datum information, and tidal stream predictions based on authoritative hydrographic data.

3.2 What causes Tides?

The term ‘tides’ is a common term used to define the rise and fall of the sea level with respect to land. Tides are caused by the gravitational pull of the Sun and Moon on the Earth and its waters. As defined by Newton’s Universal Law of Gravity, the Moon generates about double (54%) the tide-generating force of the Sun, simply because it is closer.

The ocean responds to the gravitational pull of the Sun and Moon by ‘bulging’ on the side of the Earth that faces the Moon, and the side directly opposite. The sums of the solar and lunar bulges create daily high tides as the Earth rotates.

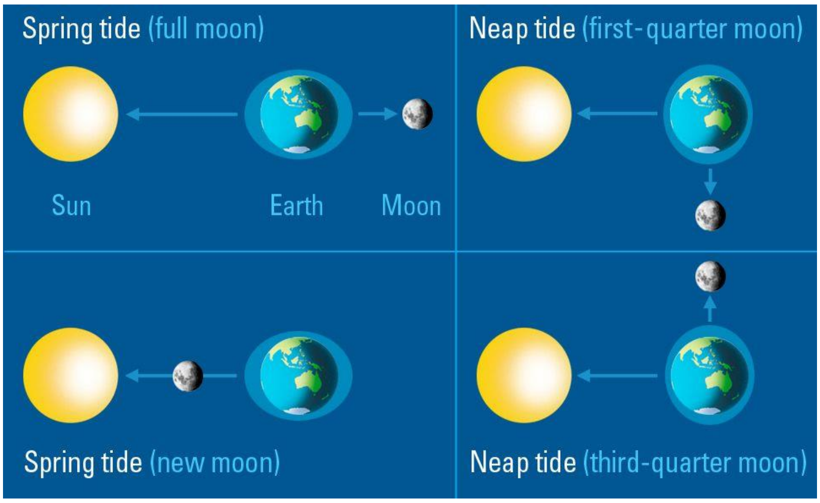
A diurnal tide is when there is one high and one low tide every lunar day. A lunar day is the time it takes for a specific point on Earth to complete a full rotation in relation to the Moon (24 hours and 50 minutes). A semi-diurnal tide is when there are two high tides and two low tides every lunar day. Most locations experience a mix of diurnal and semi-diurnal tides. This is why high and low tides occur at different times every day.

3.3 What are Spring and Neap Tides?

The Earth, Moon and Sun all have elliptical orbits, which means that the distance between them is constantly changing. From the perspective of tide-generating forces, the Sun and Moon also appear to rotate around the Earth at different frequencies, with their gravitational effect sometimes acting in the same general direction, and at other times each reducing the influence of the other.

Spring tides occur during the New and Full Moon, when the Moon and Sun are nearly in alignment. The tide-generating forces of the Sun and Moon are therefore acting in approximately the same direction (see Figure A), and cause the oceans to ‘bulge’ more than usual, resulting in the average tidal ranges to be a little larger. Neap tides occur near the First and Last Quarter Moon, when the Moon and Sun are at right angles to each other. The lunar and solar tide-generating forces are thus acting against each other (see Figure below), which causes moderate tides.

Spring and Neap tides each occur twice in a lunar month.



3.4 What is a King Tide? (Spring Tide)

While the term 'King tide' is not a scientific term, it is used to describe an especially high Spring tide event that occurs twice every year, when the earth is closest to the Sun (perihelion) or Moon (perigee).

A King tide is not more than the very highest tide that occurs at each place.

King tides occur naturally and regularly, are predictable and expected, though not an everyday occurrence.

When King tides occur during cyclones, floods or storms, water levels can rise to higher levels and have the potential to cause great damage to property and the coastline.

3.5 Methods of Prediction

Predictions for standard ports are based on continuous observations of the tide over a period of at least one year, for average meteorological conditions.

When conditions are not average, the actual tides may differ from those predicted. Under extreme meteorological conditions, these differences can be very large.

Predictions for secondary ports are extremely variable in quality. Predictions may be based upon as little as a few observations over two days up to a period of at least one month. Mariners are advised to use caution using predictions for secondary ports without local knowledge.

3.6 Meteorological Effects on Tides

Meteorological conditions, which differ from the average, will cause corresponding differences between the predicted and the actual tides.

Variations from predicted heights are caused mainly by strong or prolonged winds, and by unusually high or low barometric pressure. Differences between predicted and actual times of high and low water are mainly caused by the wind.

3.7 The effect of wind

The effect of wind on sea level and tidal heights and times is variable and depends largely on the topography of the area.

In general, wind will raise sea level in the direction towards which it is blowing; this effect is called wind setup.

A strong wind blowing onshore will pile up the water and cause 'high waters' to be higher than predicted, while winds blowing off the land will have the reverse effect. Winds blowing along a coast tend to set up long waves, which travel along the coast, raising the sea level at the crest and lowering it in the trough.

3.8 Barometric pressure

Tidal predictions are computed for average barometric pressure. A difference of 10 hectopascals (hPa) from the average can cause a difference in sea level of about 0.1m.

This depression of the water surface under high atmospheric pressure, and its elevation under low atmospheric pressure, is often described as the inverted barometer effect. The water level does not adjust itself immediately to a change of pressure, and responds to the average change in pressure over a considerable area.

The average barometric pressure and information concerning changes in sea level under different conditions is given in Admiralty Sailing Directions.

Changes in sea level due to barometric pressure rarely exceed 0.3m, but their effect can be important as they are usually associated with those caused by wind setup, since winds are driven by the pressure gradient.

3.9 Storm surges

The combination of wind setup and the inverted barometer effect associated with storms can create a pronounced increase in sea level. This is called a storm surge.

Additionally, a long surface wave travelling with the storm depression can further exaggerate this sea level increase.

A negative surge is the opposite effect. Negative surges are generally associated with high-pressure systems and offshore winds and can create unusually shallow water. This effect is of great importance to very large vessels navigating with small under keel clearances.

3.10 Seasonal effects

Monthly seasonal variations in Mean Sea Level (MSL) of 0.1m may typically be experienced, occasionally reaching as much as 0.3m. In addition, oceanographic effects such as Southern Oscillation Index (El Niño/ La Niña) can produce large scale variations in MSL of up to 0.5m with corresponding changes in rate and direction of tidal streams.

3.11 Phases of the Moon

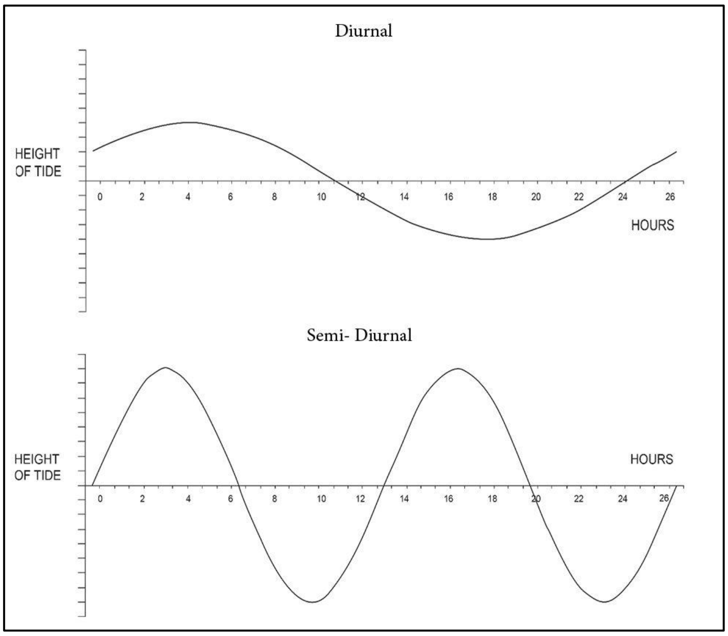
The following symbols are used to indicate moon phases:

● New Moon ◐ First Quarter
○ Full Moon ◑ Third Quarter

Moon phases are shown in Standard Time (ST) for all standard ports.

3.12 Criteria for Diurnal and Semi-Diurnal Tides

All tides are composed of both diurnal and semi-diurnal components, which can be represented as cosine waves as illustrated in the following diagram:



These components introduce inequality in successive heights and time intervals of high or low water. When this diurnal inequality reaches a certain limit, it is more informative to list the average heights for each of the higher and lower high waters, and each of the higher and lower low waters, rather than the average spring and neap values.

In these tables, the following criteria are used:

- when (K1 + O1)/(M2 + S2) is less than or equal to 0.5, the tide is considered to be semi-diurnal
- when (K1 + O1)/(M2 + S2) is greater than 0.5, the tide is considered to be diurnal.

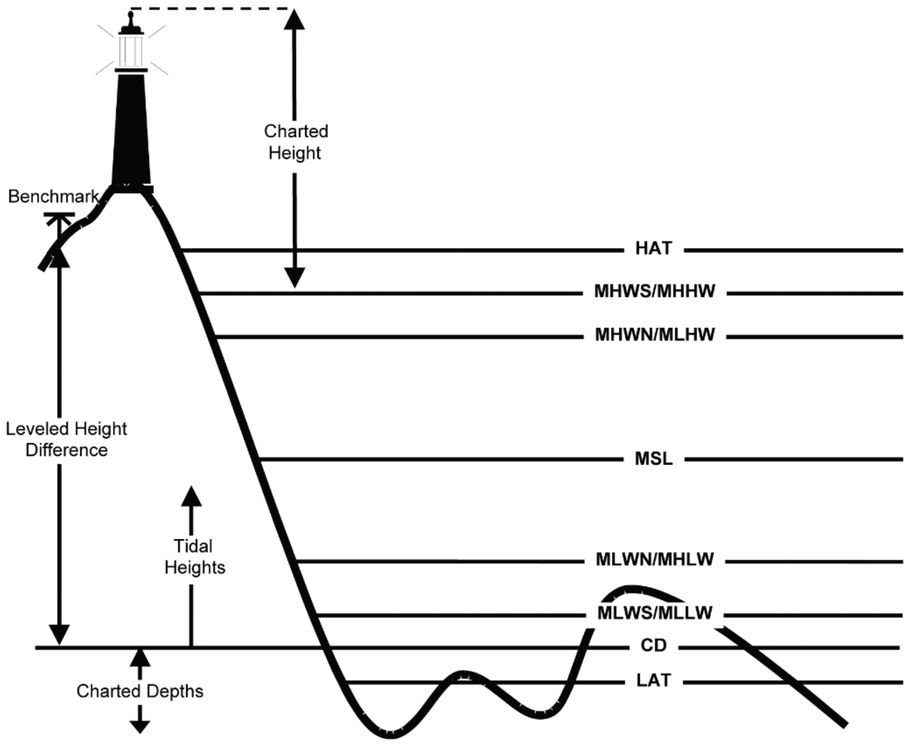
In some areas, these formulae are unsatisfactory and a more detailed study of the harmonic constituents is necessary to determine tidal characteristics.

3.13 Tidal Levels

The terms used for tidal levels are as follows:

Acronym	Title	Description
HAT	Highest Astronomical Tide	The highest level that can be predicted to occur under average meteorological conditions and under any combination of astronomical conditions.
LAT	Lowest Astronomical Tide	The lowest level which can be predicted to occur under average meteorological conditions and under any combination of astronomical conditions.
MHWS	Mean High Water Springs	The average of all high water observations at the time of spring tide over a period of time (preferably 19 years).
MLWS	Mean Low Water Springs	The average of all low water observations at the time of spring tide over a period of time (preferably 19 years).
MHWN	Mean High Water Neaps	The average of all high water observations at the time of neap tide over a period of time (preferably 19 years).
MLWN	Mean Low Water Neaps	The average of all low water observations at the time of neap tide over a period of time (preferably 19 years).
MSL	Mean Sea Level	The average level of the sea surface over a long period of time (preferably 19 years), or the average level which would exist in the absence of tides.
MHHW	Mean Higher High Water	The average of the higher of the two daily high waters over a period of time (preferably 19 years).
MLHW	Mean Lower High Water	The average of the lower of the two daily high waters over a period of time (preferably 19 years).
MHLW	Mean Higher Low Water	The average of the higher of the two daily low waters over a period of time (preferably 19 years).
MLLW	Mean Lower Low Water	The average of the lower of the two daily low waters over a period of time (preferably 19 years).
ISLW	Indian Springs Low Water	The elevation depressed below mean sea level by the amount equal to the sum of amplitudes of the four main harmonic constituents: M2, S2, K1 and O1.
CD	Chart Datum	The level to which all charted depths and drying heights are referred. Details are provided on all Australian produced Paper Nautical Charts (PNC) and within the metadata of all Australian produced Electronic Navigational Charts (ENC).

The diagram below shows a typical relationship between tidal levels and Chart Datum (CD):



Tidal levels used throughout this publication are derived using the following simplified formulae when not based on observations:

For diurnal ports (defined at Section 3.12):	For semi-diurnal ports (defined at Section 3.12):
MHHW = Z0 + (M2 + K1 + O1)	MHWS = Z0 + (M2 + S2)
MLHW = Z0 + abs(M2 − (K1 + O1))	MHWN = Z0 + abs(M2 − S2)
MHLW = Z0 − abs(M2 − (K1 + O1))	MLWN = Z0 − abs(M2 − S2)
MLLW = Z0 − (M2 + K1 + O1)	MLWS = Z0 − (M2 + S2)
ISLW = Z0 − (M2 + S2 + K1 + O1)	ISLW = Z0 − (M2 + S2 + K1 + O1)

The "*Prediction Level*" tab on the tidal prediction window lists the levels for the selected port and referred to LAT, which is the datum for the majority of Australian charts.

Tidal levels for standard ports are subject to re-examination from time to time; due to changes in MSL, they do not necessarily remain constant.

3.14 Datums for Predictions

Predictions for all ports are referenced to LAT, which is the CD for almost all charts published by the AHO.

Standard Port predictions were set to LAT(1992) as defined for the 2009 edition of ANTT as the first edition of all Standard Port predictions being published at LAT.

3.15 Levels of Zero of Predictions

AusTides provides predictions datum connections to benchmarks for all standard and quasi standard ports. The information can be found at Level / To Chart Datum Corrections and Zero of Predictions located at the menu bar of the tidal prediction window. Please contact the relevant Port Authority, State organisation or the Tides and Geodetic Control Section of the Australian Hydrographic Office, to obtain the information related to the levels of zero of predictions and the connection to the land borne benchmarks for all secondary ports of your interests.

For locations where the largest-scale ENC is not referenced to LAT, a correction will be required to be mathematically added to predicted tidal heights.

Corrections are listed on the *"Source"* tab. As PNC are derived from ENC, corrections for PNC are assumed to be the same as the ENC.

Predictions for secondary ports are extremely variable in quality. Predictions may be based upon as little as a few observations over two days up to a period of at least one month. Mariners are advised to use caution using predictions for secondary ports without local knowledge.

3.16 To Chart Datum Corrections

"LAT to CD" for secondary port is the correction to be applied to obtain predictions above chart datum of the largest scale Australian chart of the locality. If the value is positive then add the correction, if the value is negative then subtract the correction and if it is "UNKNOWN" then the correction to be applied could not be determined. It may be expected that in time, as datum unification progresses, more charts will be based on LAT, and therefore "LAT to CD" correction will tend to 0.0.

"LAT to CD" corrections are provided for the largest scale Australian chart of the locality only and can be found at: "*Prediction Level*" tab of the tidal prediction window.

3.17 Sources of Data for Secondary Ports

Source of data for each secondary port can be found at "*Source*" tab of the tidal prediction window. It is an indication of the ownership of the observed data being used for computing the harmonic constituents and generating the tidal height predictions for the secondary port.

3.18 Times for Predictions

There are twenty-four Time Zones in the world, each covering 15° of longitude. The zero time zone, in which the time kept corresponds to Universal Time (UT) or ZULU Time, is centered on the prime meridian and extends from 7½°W to 7½°E. The other zones, in which time kept differs from UT by an integral number of hours, are sequentially numbered and have either a negative prefix if east of the Greenwich meridian or a positive prefix if west of the Greenwich meridian.

To convert time to UT, the number of hours as given by the zone number is mathematically added to the zone time, e.g. in Zone -0800 the time kept is 8 hours in advance of UT and so at 2000 local time it is 1200 UT.

On land, a uniform time is adopted for convenience throughout a given state or country even though its boundaries may not lie wholly within a particular time zone. The Standard Time or Legal Time is in most cases that of the zone in which the state or the country mainly lies.

A Daylight Saving Time, introduced frequently to prolong the hours of daylight in the evening during summer months, in certain states or countries be legal time for a part of the year. The Standard Time of the zone to the eastward is normally adopted during such periods, e.g. *Eastern Australian Summer Time is Zone -1100.* In certain countries this advanced time has been made Standard Time throughout the year. A Daylight Saving Time option is available in the Port Prediction menu -Set Time Zone.

When using the tables it should be verified that this is the same as the time that is actually being kept. Changes in zone times are not always reported in sufficient time for inclusion in the latest edition of the tide tables.

3.19 Universal Time

All tidal predictions using universal time are based on the maximum number of harmonic constants available. The number of harmonic constants for a given port depends on the length of observation. The accuracy of the tidal predictions will vary in quality depending on the number of harmonic constants used in the prediction.

There may be slight differences between the High/Low values and the 20 minute predictions displayed on the tidal curve due to slightly different algorithms used to calculate them. Predictions from the two methods should be within 0.1 metres of each other within the 20 minute interval.

3.20 Tidal streams and currents

A distinction is drawn between tidal streams that are astronomical in origin, and currents that are not dependent on astronomical factors. In practice, the navigator usually experiences a combination of current and tidal stream. Like tidal heights, tidal streams can be predicted, but currents must be assessed from information published on charts and in Sailing Directions.

3.21 Tidal stream predictions in tide tables

Predictions are available for the following locations:

- Torres Strait, Queensland - Varzin Passage, Harrison Rock, Mecca Reef North, Hammond Rock, Nardana Patches and Alert Patches
- Mackay Outer Harbour, Queensland – Oom Shoal
- Port Phillip, Victoria - The Rip.
- Tidal stream diagrams for flood and ebb conditions are available for the following locations: Sydney Harbour, New South Wales
- Port Philip, Victoria – Port Phillip Heads, including The Rip
- Broome, Western Australia
- Darwin, Northern Territory

3.22 Tidal stream predictions on charts

ENC and PNC contain tables for tidal streams at selected locations which are referenced to a standard port. These tables list the rate and direction in hourly increments before and after high water for the nominated standard port.

3.23 Under Keel Clearance Management System in Torres Strait

An Under Keel Clearance Management (UKCM) System is operated in Torres Strait by the Australian Maritime Safety Authority (AMSA).

It is a web-based system that allows vessel operators and coastal pilots to plan and monitor the safe and efficient transit of deep draught vessels through Gannet Passage, Varzin Passage and Prince of Wales Channel in Torres Strait.

For more information, refer to AHP20, Mariner's Handbook for Australian Waters, or visit the AMSA Website

3.24 Torres Strait transmitting tide and current gauges

A network of transmitting tide and current gauges are available to assist vessels transiting through Torres Strait, to be used in conjunction with the UKCM System. Actual tidal heights and current speed may differ significantly from predicted rates due to meteorological effects and changes in MSL.

3.25 Transmission Format

The transmission of tidal and current data is broadcast on VHF Marine Channel 68 (156.425 MHz) by an automated voice message.

All broadcasts are made from the Hammond Island radio transmitter and radar tower on Hammond Hill (152m, located 0.5 miles SSE of Turtle Head Lighthouse). The nominal range is 24 miles. Where line of sight to Hammond Hill is obscured reception may be lost.

The five transmitting tide gauges and one transmitting current meter are at the following locations:

Name	Station Identifier	Position (World Geodetics System (WGS84)	Hours of Operation
Booby Island (tidal height)	Booby Island tide	10° 36' 09'' S 141° 54' 36'' E	H 24
Goods Island (tidal height)	Goods Island tide	10° 33' 53'' S 142° 08' 44'' E	H 24
Turtle Head (tidal height) (Hammond Island)	Turtle Head tide	10° 31' 14'' S 142° 12' 47'' E	H 24
Nardana Patches (tidal height) Nardana Patches (tidal stream)	Nardana tide Nardana stream	10° 30' 17'' S 142° 14' 38'' E	H 24
Ince Point (Wednesday Island)	Ince Point tide	10° 30' 51'' S 142° 18' 17'' E	H 24

The tidal data is broadcast in the sequence listed in the table above.

For each tide station, the broadcast includes:

- the station identifier
- the height of tide to two decimal places.

For the Nardana tidal stream station, the broadcast includes:

- the station identifier
- the direction and velocity of the tidal stream to one decimal place.

Following the Ince Point tidal data transmission, there is a three-second interval of no radio transmission.

The broadcast is repeated on a loop, recommencing with Booby Island, then all others in the same sequence. Tidal data is updated every two minutes.

If no data is available from a tidal station, the message 'no data available' will be broadcast after the respective station identifier.

Examples of broadcast tidal height signals for each transmitting gauge are outlined below:

Tidal reading	Radio transmission
Booby Island tide 1.82m	Booby Island tide is one point eight two
Goods Island tide 1.34m	Goods Island tide is one point three four
Turtle Head tide 1.02m	Turtle Head tide is one point zero two metres
Nardana Patches tide 1.24m	Nardana tide is one point two four metres
Nardana Patches stream 1.9 knots (west-	Nardana stream is west-going at one point
Ince Point tide 1.20m	Ince point tide is one point two zero metres

Tidal streams directions at Nardana Patches are generally linear:

- East-going – approximately 080°
- West-going – approximately 260°

3.26 Tidal Bores - Gulf of Papua

In the Gulf of Papua, a tidal bore occurs at springs in the lower reaches of most rivers along the coastline.

3.27 User Defined Ports

Tidal predictions for user defined ports are based on the 22 harmonic constants entered by the user. The accuracy of the tidal predictions will vary in quality depending on the number and accuracy of harmonic constants used in the prediction.

3.28 Reporting Discrepancies on Charts and Nautical Publications (Hydrographic Note)

Mariners are encouraged to report on any changes, discrepancies or omissions from charts and publications. The information will be used to improve safety of navigation by updating existing charts, sailing directions and other nautical products in both the Australian Charting Area and worldwide.

Reporting may include:

- changes to lights, buoys and beacons
- new and newly discovered obstructions
- safe routes through poorly charted waters and safe anchorages not charted
- any errors or omissions in navigation products
- ENC display issues experienced

Reports are acceptable in any style or form that best suits the writer. General instructions can be found in the Mariner's Handbook for Australian Waters and on the 'Reporting Discrepancies on Charts and Nautical Publications' form. This form is located on the AHO website at Reporting Discrepancies

Reports should be forwarded to:

Postal:
Hydrographer of Australia
Locked Bag 8801
Wollongong NSW 2500
Australia

E-mail:
datacentre@hydro.gov.au

4. Quick Reference Guide

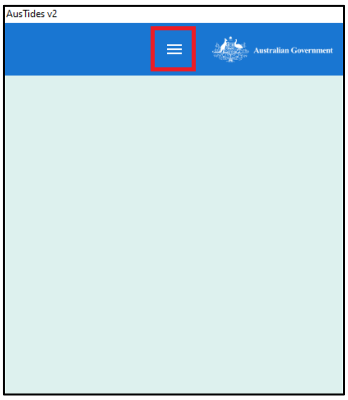
4.1 Map View

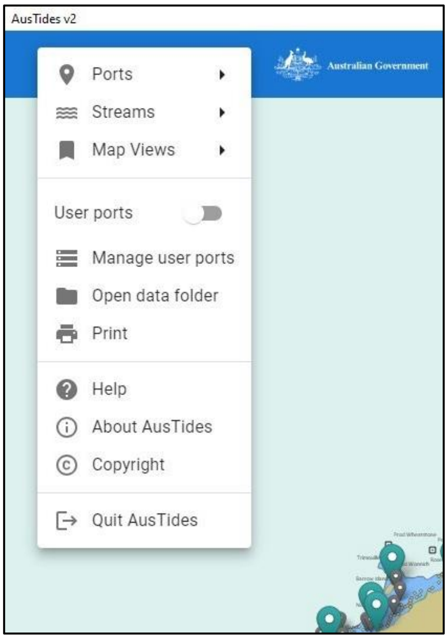
The AusTides Map View bears similarities with modern, web-based mapping applications, such as Google Earth. Click and drag on the map view to move/pan across areas.

Clicking any port tag in the map view will open the chart view for that port.

Menu button

The menu button pops out a layered menu, allowing the user to access height and steam data, adjust map views, create and view user-defined ports, update the data folder, and obtain information about the AusTides version.

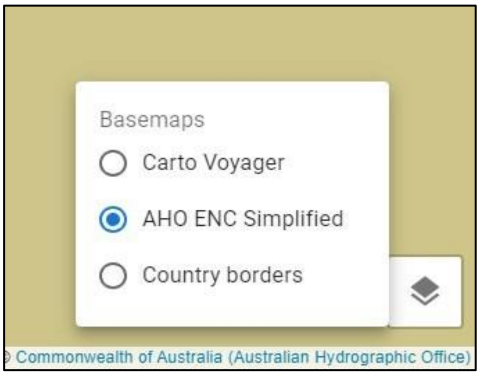




Layers button

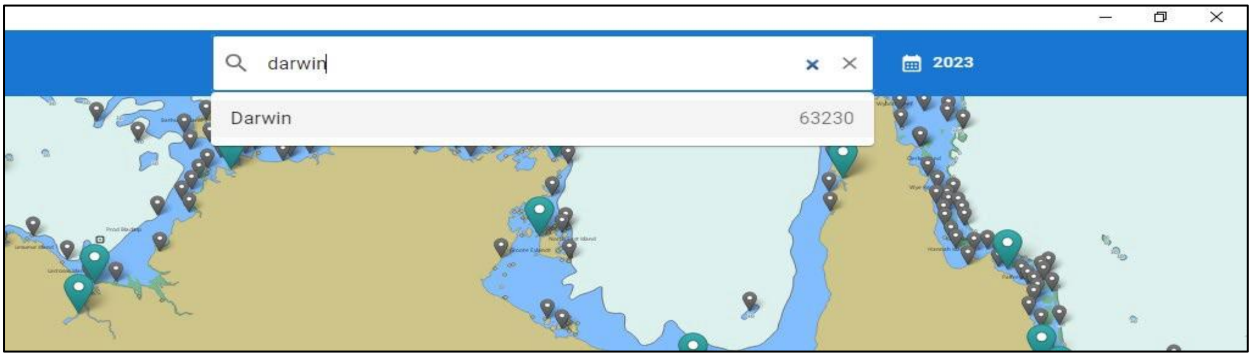
The layers button toggles between the three supported basemaps.

The Simplified ENC is **<u>not for navigation</u>** – it is only for general guidance.



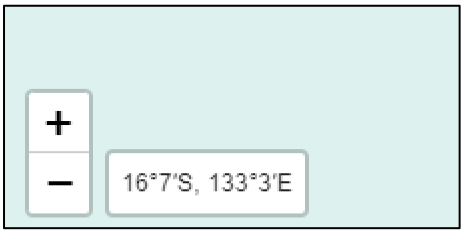
Port Search & Year

The search-bar, located at the top of the map view, allows us users to search for ports. The calendar icon toggles the year of prediction data.



Map Zoom

The map view's zoom level can be adjusted with these buttons, located in the lower left-hand corner. A mousewheel can also adjust the zoom level. The cursor's coordinates are also displayed.

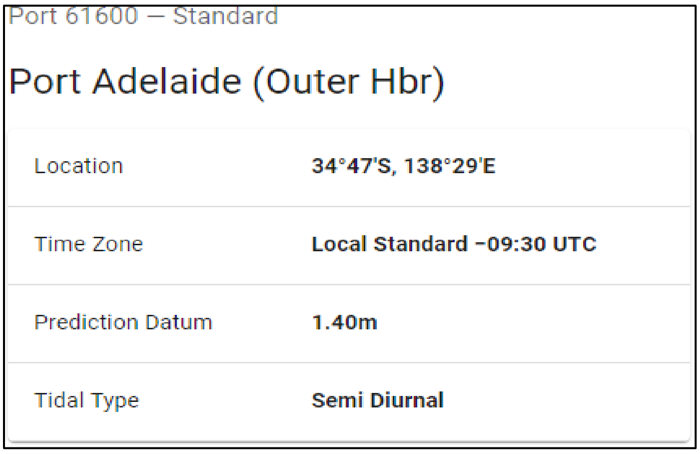


4.2 Chart View

The chart view shows all tidal and port-specific data.

Port Overview

The upper left section of the interface gives a quick overview of the selected port



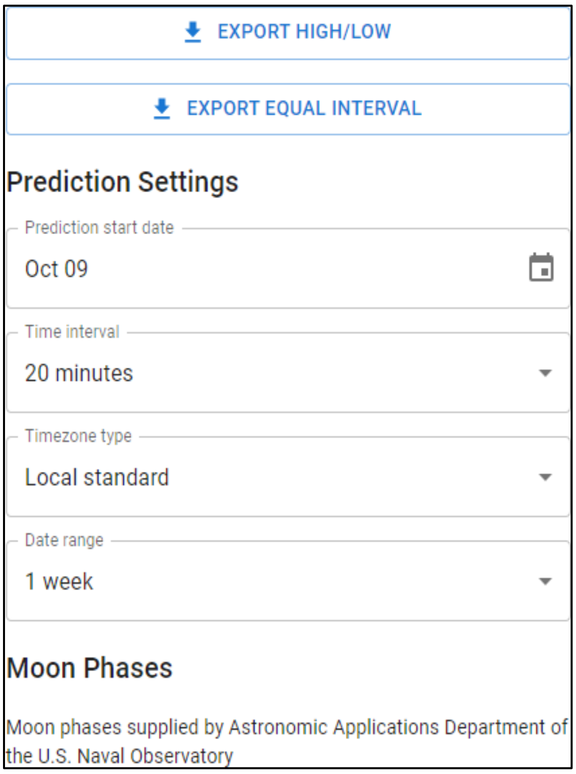
Port 61600 — Standard

Port Adelaide (Outer Hbr)

Location	34°47'S, 138°29'E
Time Zone	Local Standard −09:30 UTC
Prediction Datum	1.40m
Tidal Type	Semi Diurnal

Prediction

This section, below Port Overview, provides settings for the prediction view, and controls for exporting / printing prediction for the current port.



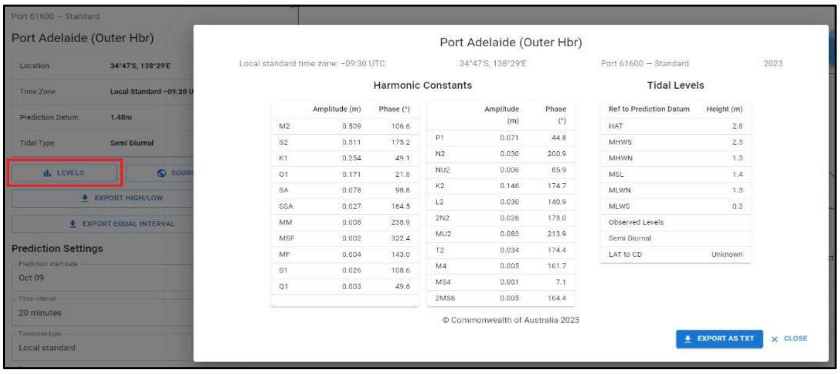
Levels

This button opens multiple tables of details for the selected port, as well as print / export controls.

Contents depend on the port tidal type.

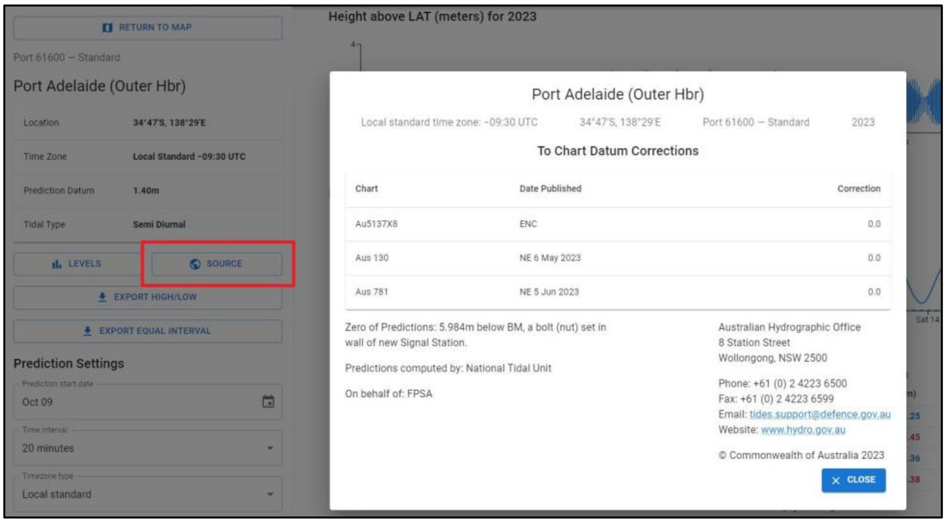
Harmonic Constants: The amplitude and phase values applied to the constants used to calculate the tide level.

Tidal Levels: The calculated maxima and mean heights, and the correction value for Lowest Astronomical Tide to Chart Datum.



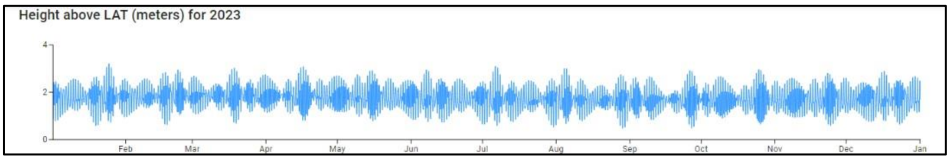
Source

This button opens the source(s), historical published corrections, and copyright information for the selected port data. Contents depend on the port type.



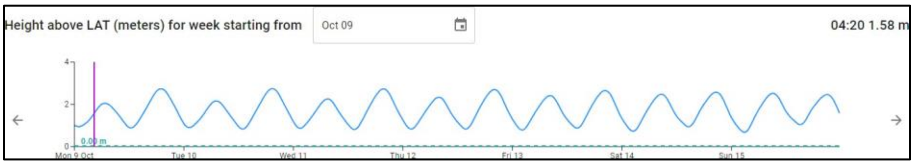
Full Year's Tides

The upper right section of the interface shows a full year of tidal height values, allowing the user to see how the tide level changes throughout the year.



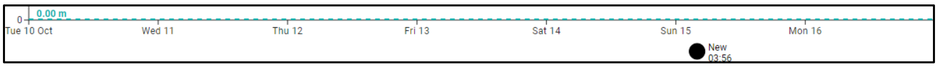
This Week's Tide Heights

The large central-right section of the interface shows the predicted tidal levels for the next 7 days. The resolution of this graph will change to reflect the prediction settings selected using the 'Prediction' tab at the left.



This Week's Lunar Phases

Directly below the tidal level graph for the week is a lunar phase display. The lunar phases shown here are aligned with the dates used for the tidal prediction.



This Week's Hi / Lo Tides

The lower section of the prediction interface shows the predicted maximum and minimum values for the coming 7 days. High tide levels are coloured blue and low tide levels are coloured red.

Mon Oct 9		Tue Oct 10		Wed Oct 11		Thu Oct 12		Fri Oct 13		Sat Oct 14		Sun Oct 15	
Time	(m)	Time	(m)	Time	(m)	Time	(m)	Time	(m)	Time	(m)	Time	(m)
00:52	0.94	01:08	0.90	01:28	0.87	01:47	0.83	02:06	0.78	02:27	0.73	02:49	0.68
06:42	2.05	07:05	2.16	07:29	2.25	07:52	2.34	08:15	2.41	08:38	2.48	09:05	2.52
12:23	0.88	12:53	0.83	13:21	0.81	13:46	0.83	14:10	0.88	14:35	0.94	15:04	1.04
18:59	2.73	19:23	2.74	19:45	2.73	20:03	2.70	20:20	2.65	20:37	2.57	20:56	2.46

No account is taken of Daylight Saving Time

These predictions are identical to those published in ANTT and can thus be used as an official navigational publication

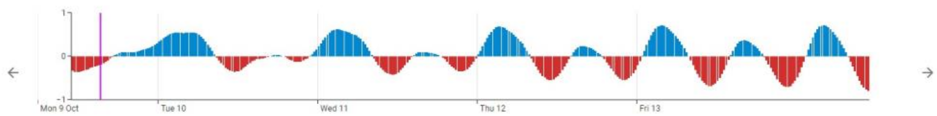
Prediction Datum is LAT, which may not be Chart Datum. Correction to Chart Datum can be found in the Prediction Level view

Stream Rate Predictions

For tidal stream ports, the full year view is removed, and the week's graphical tide and hi / lo views are replaced by 5 days of stream predictions.

Positive (flood) flow rates are coloured blue, and negative (ebb) flows are coloured red in both the graphical and text sections. The flow headings are displayed above the text display

Tidal stream rate (knots) for week starting from Oct 09 04:20 -0.19 kn



Positive (+) direction 64°

Negative (-) direction 244°

Mon Oct 9			Tue Oct 10			Wed Oct 11			Thu Oct 12			Fri Oct 13		
Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum		Slack	Maximum	
Time	Time	Rate (kn)	Time	Time	Rate (kn)	Time	Time	Rate (kn)	Time	Time	Rate (kn)	Time	Time	Rate (kn)
	00:45	-0.4		00:23	-0.4		00:02	-0.4	02:54	04:47	0.2	02:55	05:00	0.4
06:04	07:54	0.1	05:42	06:48	0.0	12:52	16:11	0.7	07:34	10:57	-0.5	07:57	11:26	-0.7
	08:33	0.1	07:42	09:47	-0.1	20:50	23:50	-0.5	13:38	16:34	0.7	14:17	16:56	0.7
	15:35	0.5	11:37	15:48	0.6				20:39	23:53	-0.7	20:38	23:59	-0.8
21:33			21:07											

These predictions do not include non-tidal flows which can affect rates and the direction of the streams

These predictions are identical to those published in ANTT and can thus be used as an official navigational publication

5 Abbreviations

AU HYDRO Services	Australian Hydrographic Services Pty. Ltd.
AIMS	Australian Institute of Marine Sciences
AMSA	Australian Maritime Safety Authority
APA	Albany Port Authority
BHP	Broken Hill Proprietary Co. Ltd.
BPA	Bunbury Port Authority
BPAQ	Beach Protection Authority Queensland
CSIRO	Commonwealth Scientific & Industrial Research Organisation
DL TAS	Tasmanian Lands Department (see TASPORTS)
DSITI	Department of Science, Information Technology, Innovation (QLD)
EPA	Esperance Port Authority
FP	Fremantle Ports
FPSA	Flinders Ports Pty. Ltd.
FUGRO	Amalgamated Decca Surveys Pty. Ltd.
GIPPORTS	Gippsland Ports
GPA	Geraldton Port Authority
HEC TAS	Hydro-Electric Commission Tasmania
HYDRO	Hydrographer of Australia
HYDUK	United Kingdom Hydrographic Office (UKHO)
MetOcean	RPS MetOcean Pty Ltd
MHL	Manly Hydraulics Laboratory, also PWD NSW
MHSA	Department of Marine & Harbors, SA (now FPSA)
MHWA	Marine and Harbours WA, also PWD WA, (now WADPI)
MSQ	Maritime Safety Queensland
NATMAP	National Mapping (now HYDRO)
NMSA	National Maritime Safety Authority
NPC	Newcastle Port Corporation
NTC	National Tidal Centre, Australian Bureau of Meteorology (Now NTU)
NTDIPE	Department of Infrastructure, Planning and Environment, NT
NTF	National Tidal Facility Australia, Adelaide, SA (now NTU)
NTU	National Operations Centre (NOC) Tidal Unit, Australian Bureau of Meteorology
PANSW	Port Authority of New South Wales
PAWA	Power and Water Authority, Darwin, NT
PCSA	Ports Corporation, SA (now FPSA)
PHPA	Port Hedland Port Authority
PKPC	Port Kembla Port Corporation (now PANSW)
PMC	Port of Melbourne Corporation

POL	Proudman Oceanographic Laboratory (now National Oceanography Centre (NOC), UK)
PP	Port of Portland Pty. Ltd.
PWD NSW	Department of Public Works, NSW (Now MHL)
PWD PNG	Public Works Department, PNG
PWD WA	Public Works Department, WA (now WA TRANSPORT)
QDOT	Department of Transport, Marine Safety, QLD (Now MSQ)
SIHU	Solomon Island Hydrographic Unit
SPC	Sydney Ports Corporation
TASPORTS	Tasmanian Ports Corporation Pty. Ltd.
TWNT	See NTDIPE
VRCA	Victorian Regional Channels Authority
WA TRANSPORT	Government of Western Australia Department of Transport
WADOT	Western Australian Department of Transport (now WA Transport)
WADPI	Department for Planning & Infrastructure, Government of Western Australia (now WA Transport