

COMPENDIUM OF TIDAL INTERFACE TERMS USED IN AUSTRALIA AND NEW ZEALAND

Introduction:

The following compendium has been developed with cooperation of members of the ICSM Tidal Interface Working Group. Members represent each Australian State, the Northern Territory, Commonwealth and New Zealand.

Development of the compendium specifically addresses the following terms of reference:

1. *To research the range of definitions that describe the boundary between the land and the sea, where they originate from and why they are used, with particular reference to the Australian and New Zealand situation.*
2. *To produce a compendium of definitions in use.*

Limitations of the Compendium:

All members experienced similar difficulties in contributing to this compendium, in particular:

1. Difficulty in comprehensively accessing all relevant sources of terminology. While on-line access to legislation and some case law greatly assisted searching, members are aware that many references to the tidal interface lie in proclamations, regulations and schedules which may not have been uncovered.
2. Difficulty in determining 'why they are used'. In many cases being confident in why certain terms are used would necessitate not only a full understanding of the relevant legislation, but also knowledge of how the legislation evolved. For instance, the term 'low water' may be used in a recent Act however the term is used to be compatible with the term used in the original 'Letters Patent' which defined the limit of the relevant State.
3. Variations between jurisdictions and legislation in the interpretation of terms used.

Members therefore aware that they do not have the legal authority to endorse this compendium as anything more than a sample of terms and the legislation in which they are found. It should also be acknowledged that many other terms may be used outside the legal environment however these have not been included in the compendium.

Reading the Compendium

The compendium is in two parts. The first is the chairman's summary of the various contributions. The second lists the various contributions in full and is a separate (and large) document.

The 'Key Term' refers to the working groups attempt at mapping terminology currently in use against a list of well defined tidal definitions. This concept is explained in a separate paper entitled '*Tidal Interface – Rationalisation of Terminology*' which addresses other aspects of the Terms of Reference.

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ICSM Tidal Interface Working Group Chairman
1 May 2003

PART 1: Compendium Summary

Term used	Definition¹	Perceived Intent	Key Term
Aust. Height Datum	http://www.auslig.gov.au/geodesy/datums/ahd.htm	Zero AHD frequently used to locate MSL	MSL
Baseline	<ul style="list-style-type: none"> ▪ Territorial Sea Baseline defined by Seas Submerged Lands Act.(NT, Qld, Tas, Cmwth) 	<ul style="list-style-type: none"> ▪ As per definition 	LAT MLWS (NZ?)
Bay	<ul style="list-style-type: none"> ▪ Semi-circle rule – low water (NZ, UN Convention) ▪ High Water in Bay (Qld) ▪ Not defined (Tas) 	<ul style="list-style-type: none"> ▪ Defining limit of internal water? 	LAT MHW MHWS
Beach	<ul style="list-style-type: none"> ▪ ... any land which forms part of the beach or shore of the sea...' (Tas) 	<ul style="list-style-type: none"> ▪ Tidal interface area which may be use by vehicles (Tas). May also be intended to include dunes etc above HAT 	?
Coast	<ul style="list-style-type: none"> ▪ Not defined (NT,WA, Cwlth, Tas, Vic) ▪ Various including between high and low tide(SA) ▪ Related to HAT (QLD) 	<ul style="list-style-type: none"> ▪ May be used where more accurate definition not critical. ▪ May also intend to differentiate ocean from inland waters. ▪ Used to describe location of some features 'eg station on the coast'. 	MHW (as common on topo maps). Others as specified.
Coastline	<ul style="list-style-type: none"> ▪ Not defined (SA, Cwlth, Tas) ▪ Assumed to be line on map (WA) ▪ HAT, LAT (NT) ▪ High Water Mark (Qld) 	<ul style="list-style-type: none"> ▪ May be used with other terms such as 'coastline at low water'. ▪ May be used where more accurate definition not critical. ▪ May also intend to differentiate ocean from inland waters. 	MHW (as common on topo maps). Others as specified.
Foreshore	<ul style="list-style-type: none"> ▪ Vague (WA) ▪ Related to low water mark (SA) ▪ Various relating to area between high and low water (Qld, NZ, Tas) ▪ Not defined (NT) 	<ul style="list-style-type: none"> ▪ Landward limit of public access (SA) ▪ Tidal interface area ▪ Related to boundary of prohibited achorage areas (NT) 	? MHW MLW
High Water Mean/mark (HWM)	<ul style="list-style-type: none"> ▪ Various in Common Law² (all) ▪ HAT (NT fisheries) ▪ Some evidence that this is same as MHWS in Qld. ▪ Same as HWMark in NSW Survey Practice Regs. 1933. 	<ul style="list-style-type: none"> ▪ Important definition commonly used as the limit of cadastral boundaries. ▪ Various other purposes in NT (eg vehicle access, fisheries) 	MHW MHWS?
Highest Astro. Tide (HAT)	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Landward limit of the tidal interface?³ 	HAT
Low water	<ul style="list-style-type: none"> ▪ Lowest Astronomical Tide for baseline ▪ Also 'lowest water at spring tides' (Fisheries Act) 	<ul style="list-style-type: none"> ▪ General term used in UN Convention on the Law of the Sea giving some latitude for interpretation. 	LAT MLWS?

¹ Definitions have been summarised in some cases and not all are included. Intention is to give an indication of the variety of definitions used across and within jurisdictions.

² See Blume, Peter: 'Mean High Water Mark Revisited' MSB Ports Authority NSW 1995, (Copy available from Chairman on request.)

³ While HAT is the highest level of normal tides inundation may exceed this level (eg storm surges), or have exceeded this level in the past. Tidal interface area may therefore lie well inland of HAT for some purposes.

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Low Water Mark (Mean) (LWM)	<ul style="list-style-type: none"> ▪ Height of lowest ebb tide (Tas) ▪ Various including LAT (NT) 	<ul style="list-style-type: none"> ▪ Same as MLW? ▪ Similar term used to define landward limit of States via Letters Patent ▪ Lower than MLWS (WA). ▪ Seaward boundary of prescribed area within which nudity is legal (NT) 	MLW LAT Other?
Lowest Astro. Tide (LAT)	<ul style="list-style-type: none"> ▪ Not defined (Vic) ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Chart Datum ▪ Normal sections of Territorial Sea Baseline (Seas and Submerged Lands Act) 	LAT
Mean High Water	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. ▪ Various approximation used in law and Surveying profession. 	<ul style="list-style-type: none"> ▪ Generally considered the common law high tide datum 	MHW
Mean High Water Spring	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Adopted as 'common law' high tide line by some States including Qld. 	MHWS
Mean Higher High Water	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Approximates MHWS where tide patterns differ 	MHHW
Mean Low Water	<ul style="list-style-type: none"> ▪ Average of all low waters defined over a period (Tas) ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Commonly used as limit of the State although not always clear (NT). 	MLW
Mean Low Water Spring	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Alternative version of MLW? 	MLWS
Mean Lower Low Water	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ Approximates MLWS where tide patterns differ 	MLLW
Mean Sea Level (MSL)	<ul style="list-style-type: none"> ▪ See Australian Hydrographic Office definition. 	<ul style="list-style-type: none"> ▪ General definition of the coastline. 	MSL
Shore / shoreline / seashore	<ul style="list-style-type: none"> ▪ Also relevant to bank of river (NZ) ▪ Shore at low water mark (Qld) ▪ Not given (SA) ▪ Not defined (Tas, Vic) 	<ul style="list-style-type: none"> ▪ Various ▪ Appears to be used for a generalised description rather than an attempt to define a definite boundary (Cmwlth). ▪ To define area below high water (SA) 	MLWS (Qld) MHW Other?
Tidal area (waters/land/river)	<ul style="list-style-type: none"> • Subject to the regular ebb and flow of the highest spring tides. (Tas) • Ordinarily covered and uncovered by the ebb and flow of the tide at spring tides. (Qld) (similar NZ) 	<ul style="list-style-type: none"> • Description of the tidal interface? 	LAT? HAT? MLWS? MHWS?

Some other terms noted related to the marine environment but not included in the above summary are listed below. Please refer to full compendium list for further information.

- 1 km line (also 2,3,5,25,500 km line) (Qld)
- Area
- AMBIS base line
- Adjacent area
- Coastal
- Coastal 1 km (2,3,5,25,500 km) line (Qld)
- Coastal Marine Area (NZ)
- Coastal Waters
- Coastal Wetlands
- Coastal Zone
- Continental shelf
- Designated Shore
- Fishery area / Fisheries jurisdiction line (Qld)
- Great Barrier Reef Region (Park)
- High Seas
- Indian Springs Low Water
- Inner Adjacent Area
- Internal Waters
- Intertidal zone
- Land Area (NT)
- Low tide elevation
- Mean Spring Tides (NZ)
- Navigable river
- Non-tidal land
- Ordinary Spring Tides (NZ)
- Ordinary HWM
- Pastoral Lease Boundary (WA)
- Port
- Reef / reef edge
- River mouth / closing line
- Sea (NT)
- Sea bed
- Sea coast
- Sea Level
- Smooth waters
- Spring Tides
- State Waters
- Straight baseline (Geodesic)
- Territorial Sea
- Waters edge (NT)
- Waters of the sea (NT)