



Australian Government

Geoscience Australia

Geodetic Connections to Tide Gauge at Portland

RESULTS OF OPTICAL LEVELLING

Bench Mark Name	Portland PM 116	Portland PM 409	Portland PM 393	Portland PM 387	Portland PM 386	T.G. Ext. Datum	GNSS RM1	GNSS RM2	PTLD BM	PTLD
AHD Ht (m) Nov 1991	8.6620	-	3.5166	3.4085	2.931	-	-	-	-	-
AHD Ht (m) Nov 1993	8.6620	-	3.5166	3.4087	2.9303	2.9177	-	-	-	-
AHD Ht (m) Oct 1994	8.6620	-	3.5169	3.4088	2.9299	2.9178	-	-	-	-
AHD Ht (m) May 1995	8.6620	2.7963	3.5165	3.4086	2.9287	2.9172	-	-	-	-
AHD Ht (m) Feb 1998	8.6620	2.7984	3.5188	3.4107	2.9303	2.9196	-	-	-	-
AHD Ht (m) Aug 1998	8.6620	2.7959	3.5162	3.4086	2.9268	2.9167	-	-	-	-
AHD Ht (m) Nov 2000	8.6620	2.7960	3.5162	3.4084	2.9278	2.9188	-	-	-	-
AHD Ht (m) Nov 2002	8.6620	2.7960	3.5162	3.4089	2.9248	2.9170	-	-	-	-
AHD Ht (m) Mar 2005	8.6620	2.7969	3.5172	3.4097	2.9257	2.9188	-	-	-	-
AHD Ht (m) Dec 2006	8.6620	2.7973	3.5175	3.4095	2.9257	2.9195	-	-	-	-
AHD Ht (m) May 2009	8.6620	2.7970	3.5174	3.4100	2.9245	2.9194	-	-	-	-

GEOSCIENCE AUSTRALIA

Cnr Jerrabomberra Ave & Hindmarsh Dve
 GPO Box 378, SYMONSTON, ACT, 2609 Australia

Phone: 61 2 6249 9111

Web Site <http://www.ga.gov.au>



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AHD Ht (m) Sep 2011	8.6620	2.7957	3.5160	3.4087	2.9233	2.9189	2.0614	2.5304	3.1557	4.3824
AHD Ht (m) Feb 2013	8.6620	2.7995	3.5201	3.4120	Not Lev	2.9212	2.0633	2.5327	3.1581	4.3848
AHD Ht (m) Apr 2015	8.6620	2.7991	3.5199	3.4126	2.9257	2.9219	2.0631	2.5328	3.1586	4.3853
AHD Ht (m) May 2017	8.6620	2.7969	3.5173	3.4100	2.9218	2.9185	-	2.5284	3.1554	4.3821
AHD Ht (m) May 2019	8.6620	2.7999	3.5205	3.4128	-	2.9209	-	2.5283	3.1579	4.3846
Comments	Datum for AHD heights. Coastal array primary BM (GBM 103)	Coastal array BM (P204-5H)	Coastal array BM (P203-1H)	Coastal array BM (1464-2H)	Destroyed Coastal array BM (1464-1). On break water	Seaframe sensor recovery BM. On pier (P204-9)	Destroyed GNSS reference mark 2. Located on Lee Break water	GNSS reference mark 1. Located on Lee Break water (P204-7)	GNSS pillar level BM (P204-10)	GNSS pillar ARP (P204-6)

- In 2011 the difference in height between the Portland GNSS pillar BM and antenna reference point was observed to be +1.2267 m.