



SEA LEVEL ACTIVITIES IN MALAYSIA

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OUTLINES

- **NATIONAL TIDE GAUGE NETWORK**
- **LIST OF GAUGE SITES**
- **TIDE GAUGE TECHNOLOGY**
- **OVERVIEW OF THE DATA AVAILABILITY**
- **SEA LEVEL PRODUCT**
- **TIDAL ANALYSIS SOFTWARE**
- **ADDRESS OF THE ORGANISATION**





NATIONAL TIDE GAUGE NETWORK

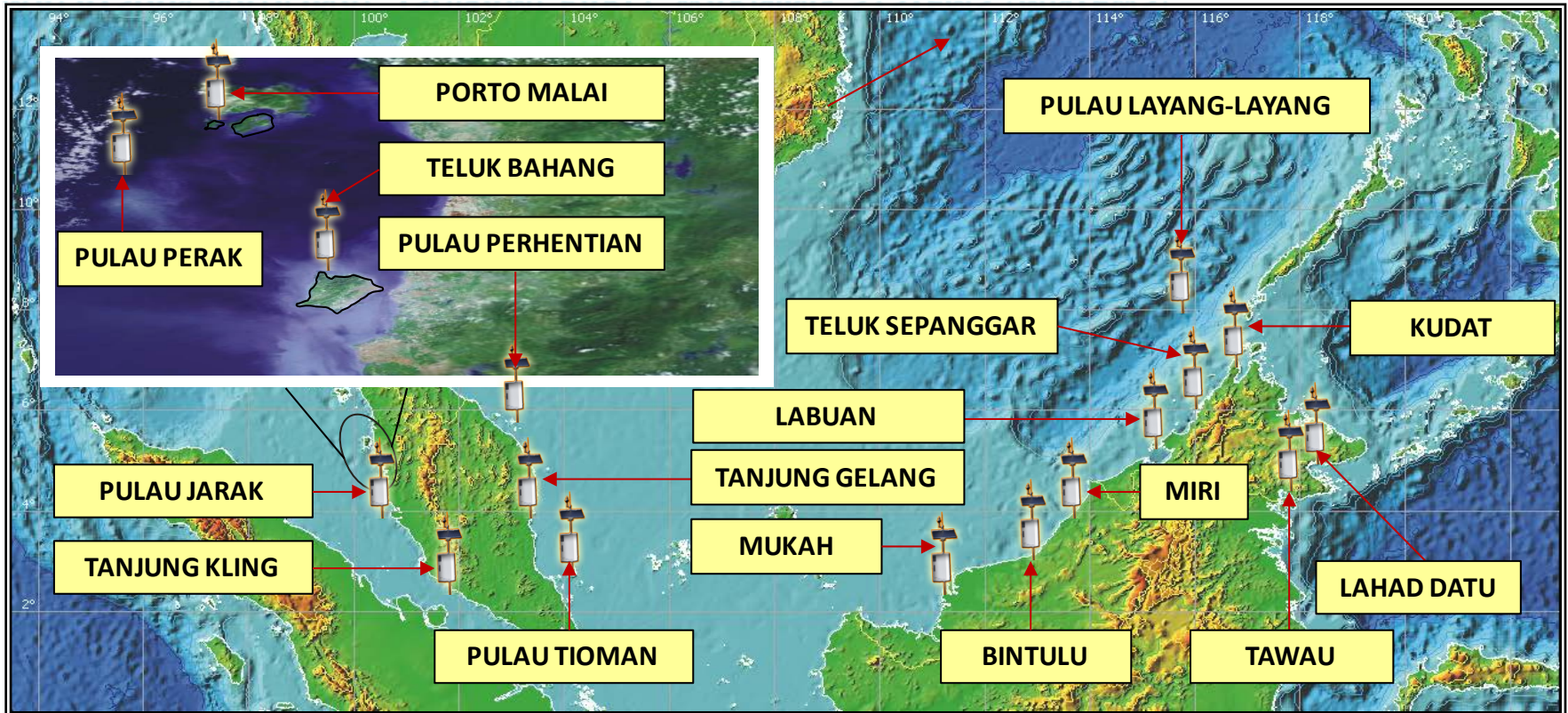
a. National Hydrographic Centre (NHC) - 25 stations





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b. Malaysian Meteorological Department (MMD) – 17 stations





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c. Department of Survey and Mapping Malaysia (DSSM) - 21 stations





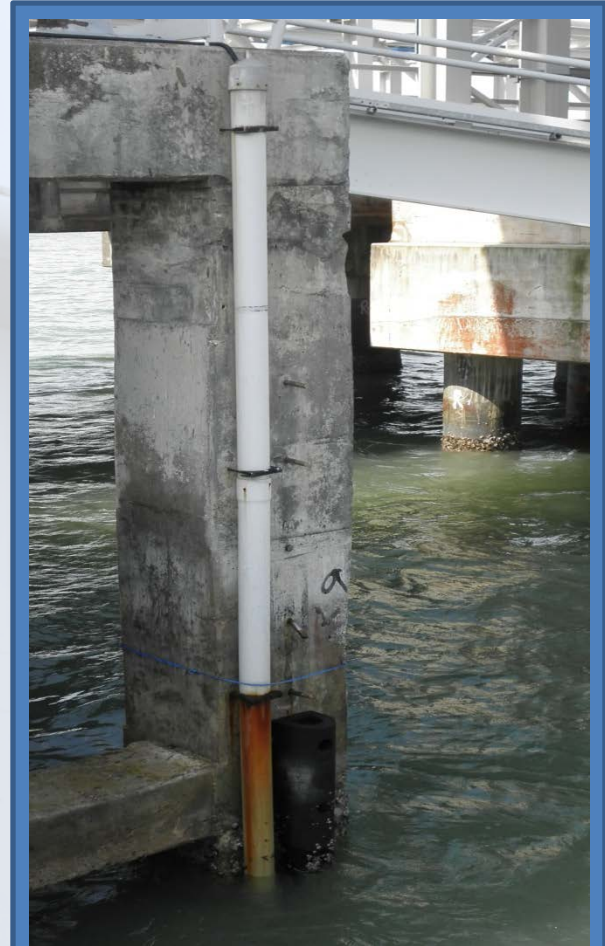
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Manual



Online



PVC for Sensor

NHC Station





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MMD Station



DSMM Station





LIST OF TIDE GAUGE SITES

a. NHC Stations

S/NO	STATION	REMARKS
1.	Kuah, Langkawi Island, Kedah	Manual
2.	Porto Malai, Langkawi Island, Kedah	Online
3.	Butterworth, Penang	Online
4.	Kuala Sepetang, Perak	Manual
5.	Lumut, Perak	Online
6.	NHC, Port Klang, Selangor	Online
7.	Port Dickson, Negeri Sembilan	Online
8.	Kuala Linggi, Melaka	Manual
9.	Muar, Johor	Manual
10.	Tanjung Langsat Port, Johor	Manual
11.	Sungai Belungkor, Johor	Manual
12.	Tanjung Pengelih, Johor	Manual
13.	KDSI Jetty, Johor	Online
14.	Mersing, Johor	Manual
15.	GGK, Mersing	Online
16.	Kuala Pahang, Pahang	Manual
17.	Tanjung Gelang, Kuantan, Pahang	Online





S/NO	STATION	REMARKS	
18.	Kuala Terengganu, Terengganu	Online	
19.	Redang Island, Terengganu	Manual	
20.	Pangkalan Kubor, Kelantan	Online	
21.	Pending, Kuching Sarawak	Online	
22.	Sepangar Bay, Kota Kinabalu, Sabah	Online	
23.	Sandakan, Sabah	Online	
24.	Anjung Lepa, Semporna, Sabah	Manual	
25.	Semporna, Sabah	Online	
TOTAL		11	Manual
		14	Online
		25	





b. MMD Stations

S/NO	STATION	REMARKS
1.	Porto Malai, Langkawi Island, Kedah	Online
2.	Kerachut Beach, Penang	Online
3.	Perak Island, Penang	Online
4.	Jarak Island, Perak	Online
5.	Tg. Keling, Malacca	Online
6.	Kuantan, Pahang	Online
7.	Tioman Island, Pahang	Online
8.	Perhentian Island, Terengganu	Online
9.	Mukah, Sarawak	Online
10.	Bintulu, Sarawak	Online
11.	Miri, Sarawak	Online
12.	Layang-Layang Island	Online
13.	Labuan Island	Online
14.	Sepangar Bay, Sabah	Online
15.	Kudat, Sabah	Online
16.	Lahat Datu Sabah	Online
17.	Tawau, Sabah	Online





c. DSMM Stations

S/NO	STATION	REMARKS
1.	Telok Ewa Jetty, Langkawi Island, Kedah	Online
2.	Penang Yatch Club, George Town, Penang	Manual
3.	Lumut, Perak	Manual
4.	North Port, Port Klang, Selangor	Online
5.	Tg. Beruas Jetty, Tg. Keling, Malacca	Manual
6.	Kukup Jetty, Pontian, Johor	Manual
7.	Custom Jetty, Johor Bahru	Manual
8.	Tg Sedili, Johor	Manual
9.	Tioman Island, Pahang	Manual
10.	Tg. Gelang, Kuantan, Pahang	Manual
11.	Chendering, Terengganu	Online
12.	Geting, Kelantan	Manual
13.	Sijingkat, Sarawak	Manual
14.	Bintulu Port, Sarawak	Online
15.	Marina Park, Miri, Sarawak	Manual
16.	Labuan Island	Online
17.	Kota Kinabalu Port, Sabah	Manual





S/NO	STATION	REMARKS
18.	Kudat, Sabah	Online
19.	Sandakan Port, Sabah	Online
20.	Lahad Datu, Sabah	Manual
21.	Tawau Port, Sabah	Manual
TOTAL	14	Manual
	7	Online
	21	





1. National Hydrographic Centre

- Pressure Gauge
- Data retrieved by manual and online (GSM)
- Data interval every 10 minutes

2. Malaysian Meteorological Department

- Pressure Gauge
- Data retrieved by online (Very Small Aperture Terminal-VSAT)
- Data interval every 1 minute

3. Department of Survey and Mapping Malaysia

- Digital Feuss Type (DFT) Float
- Data retrieved by manual/ online (fixed dedicated line & VSAT as a backup)
- Data interval every 1 sec





OVERVIEW OF THE DATA AVAILABILITY

1. National Hydrographic Centre 

2. Malaysian Meteorological Department 

3. Department of Survey and Mapping Malaysia 

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SEA LEVEL PRODUCT

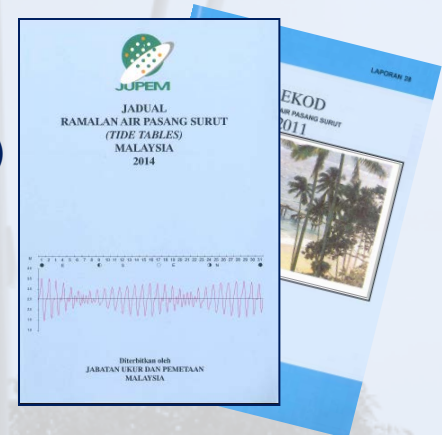
1. National Hydrographic Centre

- Determination of Chart Datum for charting
- Tide Prediction (Tide Tables - refer to LAT)



2. Department of Survey and Mapping Malaysia

- Tide Prediction (Tide Table - refer to ILWS)
- Yearly Technical Report (Monthly Data & Monthly MSL)
- Determination of Vertical Datum for land survey





TIDAL ANALYSIS SOFTWARE

There are 2 tidal analysis software being used:

- 1. National Hydrographic Centre**
Asean Tidal Software (ATS)
- 2. Department of Survey and Mapping Malaysia**
DSMM Tidal Software (customised)





ADDRESS OF ORGANISATION



National Hydrographic Center

Bandar Armada Putra
Pulau Indah
42009 PORT KLANG
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Tel : (603) – 31694400
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Email : mmd@met.gov.my

The screenshot displays the official website of the Malaysian Meteorological Department (MMD). At the top, it features the logos for MOSTI (Ministry of Science, Technology and Innovation) and MET Malaysia. A navigation bar includes links for Home, About Us, Services, Client Charter, Site Map, Feedback, and Contact Us. A prominent banner for 'SAMBUTAN HARI METEOROLOGI SEDUNIA 23 MAC 2014' (World Meteorological Day 2014) is visible, along with the theme 'CUACA BUKAN PENGALAMAN GENERASI MUDA' (Weather is Climate Engaging Youth). The main content area is divided into several sections: a 'Main Menu' on the left with categories like Weather Forecasts, Marine Forecasts, and Observations; a 'Weather Forecast Today' section with icons for Morning, Afternoon, Night, and Sea; a 'Current Weather' section featuring a map of Malaysia with weather icons and a timestamp of Tuesday, March 18, 2014, 9:00 PM; and a 'Weather Warnings' section on the right listing alerts such as Earthquake / Tsunami, Strong Winds & Rough Seas, Heavy Rain, and Tropical Cyclone & Storm. There is also an 'Announcement' section regarding cloud seeding operations.





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THANK YOU

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TIDAL DATA DSM

S/NO	STATION	DATA	REMARK
1	Telok Ewa Jetty, Langkawi Island, Kedah	1986 – Mac 2014	
2	Penang Yatch Club, George Town, Penang	1985 – Mac 2014	
3	Lumut, Perak	1985 – Mac 2014	
4	North Port, Port Klang, Selangor	1984 – Mac 2014	
5	Tg. Beruas Jetty, Tg. Keling, Malacca	1985 – Mac 2014	
6	Kukup Jetty, Pontian, Johor	1986 – Mac 2014	
7	Custom Jetty, Johor Bahru	1985 – Mac 2014	
8	Tg Sedili, Johor	1987 – Mac 2014	
9	Tioman Island, Pahang	1986 – Mac 2014	
10	Tg. Gelang, Kuantan, Pahang	1984 – Mac 2014	
11	Chendering, Terengganu	1985 – Mac 2014	
12	Geting, Kelantan	1987 – Mac 2014	
13	Sejingkat, Sarawak	1997 – 2012	
14	Bintulu Port, Sarawak	1993 – Mac 2014	
15	Marina Park, Miri, Sarawak	2006 – Mac 2014	
16	Labuan Island	1996 – Mac 2014	
17	Kota Kinabalu Port, Sabah	1988 – Mac 2014	
18	Kudat, Sabah	1996 – Mac 2014	
19	Sandakan Port, Sabah	1994 – Mac 2014	
20	Lahad datu, Sabah	1996 – Mac 2014	
21	Tawau Port, Sabah	1988 – Mac 2014	

TIDAL DATA MMD

S/NO	STATION	DATA	REMARK
1	Porto Malai, Langkawi Island, Kedah	2011-2014	
2	Kerachut Beach, Penang	2011-2014	
3	Perak Island, Penang	2011-2014	
4	Jarak Island, Perak	2011-2014	
5	Tg. Keling, Malacca	2011-2014	
6	Kuantan, Pahang	2011-2014	
7	Tioman Island, Pahang	2011-2014	
8	Perhentian Island, Terengganu	2011-2014	
9	Mukah, Sarawak	2011-2014	
10	Bintulu, Sarawak	2011-2014	
11	Miri, Sarawak	2011-2014	
12	Layang-Layang Island	2011-2014	
13	Labuan Island	2011-2014	
14	Sepangar Bay, Sabah	2011-2014	
15	Kudat, Sabah	2011-2014	
16	Lahat Datu, Sabah	2011-2014	
17	Tawau, Sabah	2011-2014	

TIDAL DATA NHC

S/NO	STATION	DATA	REMARK
1	Kuah, Langkawi Island, Kedah	Jan 2005 – 2014	
2	Porto Malai, Langkawi Island, Kedah	Jan 2011 – Jan 2014	No Data Mei to Ogos 2012
3	Butterworth, Penang	Jan 2011 – Mac 2014	No Data Jun 2012
4	Kuala Sepetang, Perak	May 2010 – 2014	
5	Lumut, Perak	Jan 2011 – Ogos 2014	No Data Sep 2012 to Mac 2014
6	NHC, Port Klang, Selangor	Ogos 2011– Mac 2014	No Data Jan to Mac 2012
7	Port Dickson, Negeri Sembilan	Jan 2011 – Mac 2014	No Data Jan to Mac 2012 & Mac 2013
8	Kuala Linggi, Melaka	Nov 2007 – 2014	
9	Muar, Johor	Mac 2012 – 2014	
10	Tanjung Langsung Port, Johor	Apr 2010 – Nov 2013	
11	Sungai Belungkor, Johor	Dec 2008 – 2014	
12	Tanjung Pengelih, Johor	Jan 2009 – 2014	
13	KDSI Jetty, Johor	Jan 2011 – Mac 2014	No Data Jan to May 2012
14	Mersing, Johor	Sep 2008 – 2014	
15	GGK, Mersing	Feb 2011 – Feb 2014	No Data Jan to Mac 2012
16	Kuala Pahang, Pahang	Oct 2010 - 2014	
17	Tanjung Gelang, Kuantan, Pahang	Jan 2011 – Nov 2013	
18	Kuala Terangganu, Terengganu	Jan 2011 – Okt 2013	No Data Mac to May 2012
19	Redang Island, Terengganu	May 2011 - 2014	
20	Pangkalan Kubor, Kelantan	Jan 2011- Mac 2014	No Data Jan 2012 & Dec 2013
21	Pending, Kuching Sarawak	Jan 2011 – Nov 2013	No Data Mac to June 2011 & June 2012
22	Sepangar Bay, Kota Kinabalu, Sabah	Jan 2011 – Feb 2014	No Data Jan to Jul, Nov, Dec 2012
23	Sandakan, Sabah	Jan 2011 – Feb 2014	No Data Nov to Dec 2012 & Jan, Feb, Sep - Nov 2012
24	Anjung Lepa, Semporna, Sabah	Mac 2010 – May 2013	
25	Semporna, Sabah	Jan 2011 - Feb 2014	No Data Jan to Mac 2012 & Oct 2013