



Determination of mean sea level for land surveying and lowest astronomical tide for hydrographic survey and influencing meteorological factors

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This paper is prepared based on two years continuous recording of water level (Tide), Meteorological data (Wind speed and wind direction, Air pressure, Air temperature, water temperature) and Oceanographic data (Current and wave) with the latest marine instruments to calculate the accurate values of the following parameters: 1-Mean Sea Level (MSL) as a land surveying vertical datum. 2-Lowest Astronomical Tide (LAT) as a Hydrographic survey vertical datum. 3-One year tide prediction. 4-Effects of meteorological factors on Tide, Current and Wave and quality control methods on them. 5-Economical solutions to transmit, receive, archive and lease the real time meteorological and oceanographic data in the Internet for end-users. Due to huge marine construction in this area such as, biggest man-made island in the world and underwater hotel (Palm Islands, World Island and Hydropolis hotel), Surveying and mapping department of Dubai municipality decided to determine an accurate vertical datum for marine purposes and also study on meteorological and physical oceanographic data.