

New Zealand – National Report

Glen Rowe, Senior Tidal Officer, Location Information

6th IHO TWLWG Meeting, Wollongong, March 2014

Organisation Structure



Land Information New Zealand (LINZ)

A New Zealand government department responsible for land titles, geodetic and cadastral survey systems, topographic information, hydrographic information, managing Crown property and a variety of other functions.

- New Zealand Hydrographic Authority
 - LINZ assumed hydrographic responsibilities from Royal NZ Navy in 1996.
 - Initially work contracted back to RNZN, now all in-house except for hydrographic surveys.

Organisation Structure



- Manager Hydrography
- National Hydrographer
- Hydrographic Leadership Team (Manager + 4)
 - Hydrographic Surveyors (2)
 - Nautical Cartographers (7)
 - Manager Chart Production
 - Hydro Systems Technical Lead
 - Hydro Data Analyst
 - Tide Officer

Permanent Tide Gauges





Sea Level Data



- Recorded at 1, 5 or 10 minute intervals
- Received daily, monthly, quarterly
- Multiple formats
- E-mail, ftp, internet
- Archived by LINZ
- Data owned by supplier

Analysis and Prediction



- Use Mike Foreman's software
- Sea Level Information Management System (SLIMS)
- Annual analyses of permanent sites
- Publish daily high/low predictions for 16 standard ports in NZ Nautical Almanac
- Publish offset corrections for 212 secondary ports in NZ Nautical Almanac



- Time-series data system
- · Data validation, analysis, predictions, tide levels etc
- Editing functions
- Graphical views of data
- Data, constituent sets, tidal levels etc stored in SQL Server database



Sea Level Information Management System - [Main Window]		
File Edit View Map Data Graph Window Help	Identification Station ID Name Auckland Lat/Long 36*51*S I74*46*E Edit Identification Master Mean Tidal Levels Admiralty Master Mean Tidal Levels Admiralty Means MHWS 3.387 MHWN 2.867 MLWN 0.326 MLWS 0.397 Derived Manual MSL Batt Edit Levels Edit Levels Secondary Port Std Port Time Differences Computed Mean Low Water Edit Secondary Port	Benchmarks Name Code CD Description Primary Sec 1 Sec 2 Constituents Master Date [1-Jul-2004 Data from [1-Jan-1995] to [31-Dec-2013] Number of Constituents [26 Theoretical RMS 8.56 Matrix Condition [0.62 Residual Std Deviation [68.32] Comment [File 070AUCKLAND Harm 1995-20] Edit Constituents Summary of Levels Graph Sea Level Graph Predictions Graph Predictions Graph Tidal Levels
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- LINZ web-site
- MarineMate

- NZ MetService
- OceanFun
- Other 3rd parties on request

All free of charge



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Tsunami Monitoring Network

- 17 sites
- Fully operational 2010
- Druck pressure sensors
- 30 sec comms
- Partnership with GNS Science





Tōhoku, Japan - 11 March 2011





Thank You