

NEW ZEALAND NATIONAL REPORT

TO THE

12TH SOUTH WEST PACIFIC
HYDROGRAPHIC COMMISSION (SWPHC)
MEETING

Port Villa, VANUATU

12TH – 14TH November 2013

1. Land Information New Zealand (LINZ)

1.1 In September 2012 a new LINZ CE, Peter Merci, was appointed.

1.2 The National Hydrographer (Adam Greenland) and Manager Hydrography (Andrea McDonald) lead the New Zealand Hydrographic Authority (NZHA) in partnership. Both positions report to the General Manager Customer Services, Jan Pierce.

1.3 The Hydrographic Leadership Team was established in September 2012 and the Team Leads are for Survey (Stuart Caie); Tides (Glen Rowe); Chart Production (Jennifer Ryan); and Hydrographic Systems (Kristian Jones). The NZHA is currently recruiting for two Nautical Cartographers.

1.4 The NZHA comprises 19 personnel, with the recent addition of a Cat-A Hydrographic Surveyor and two experienced Nautical Cartographers.

1.5 In 2011 LINZ and the Ministry of Foreign Affairs (MFAT) NZ Aid agreed an MOU to accelerate ENC production in the New Zealand area of charting coverage; and undertake a risk assessment of Pacific Island Countries to prioritise chart improvements and other safety mitigations such as aids to navigation, etc. for maritime safety.

The methodology for the Hydrography Risk Assessment and the Vanuatu proof of concept have been completed and published and are available from the IHO website at http://iho.int/mtg_docs/CB/CBA/SWPHC-Risk_Assessment.htm. The risk assessments for the Cook Islands and the Kingdom of Tonga are currently underway.

1.6 In 2005 LINZ commenced a programme of works to implement a Hydrographic Data Infrastructure (HDI) by developing the people, systems and processes to enable delivery of Hydrography for NZ to meet National and International needs. To-date the HDI Programme has delivered a number of projects:

- the implementation of a single source hydrographic production database (HPD)
- catalogue and discovery tool for hydrographic information
- the implementation of a Digital Data Repository for the storage of LINZ hydrographic survey data
- scanning of paper records i.e. Sounding Sheets, Reports of Surveys
- the implementation of a new RNC module
- production of RNCs in the unencrypted BSB file format
- the implementation of a bathymetric database
- the production and maintenance of official products (paper charts, ENCs and RNCs) from HPD.

HDI Projects in-progress:

- population of the single source hydrographic database with vector data for paper and ENC charting
- implementation of a publications module i.e. Notices to Mariners.

1.7 Since SWPHC11 LINZ has been involved in a number of IHO meetings, and most notably hosting the international Shallow Survey conference:

- Shallow Survey 2012 Conference, Wellington, February 2012
(<http://www.conference.co.nz/shallowsurvey>)

1.8 Adam Greenland, the National Hydrographer, was appointed the Capacity Building Coordinator for the SWPHC in 2013.

2. Surveys

2.1 Coverage of new surveys.

Survey Number	Area	Completed
HYD-1213-HS35	North Island, East Coast – Whitianga Harbour	June 2013
HYD-1213-HS36	South Island, East Coast – Shipping Lane 6	Sept 2013
HYD-1213-HS38	North Island, East Coast – Bay of Islands	June 2013
HYD-1213-HS39	North Island, East Coast – Bay of Plenty	June 2013

2.2 New technologies and /or equipment

LINZ, in collaboration with Waikato Regional Council are investigating recent developments in Airborne Laser Bathymetry (ALB) and how this technology can be used for the National Hydrographic Survey Programme; and assisting with improving existing hydrodynamic models for inundation modelling.

The chosen study areas have recent multi-beam surveys i.e. Bay of Islands, Bay of Plenty and Whitianga (listed above). Fieldwork was completed in May 2013 and complete data deliverables are expected in October 2013.

In July 2013 LINZ launched the *HNote* smartphone application ([Android](#) or [Apple](#)) which allows the user to photograph a hazard, make a record of the location manually or using GPS, and send the information directly to the New Zealand Hydrographic Authority.

In August 2013 LINZ contributed to the launch of the *MarineMate* smartphone application ([Apple](#), Android to follow) which allows users to receive maritime information pertinent to their area of interest, including Notices to Mariners.

2.3 New ships

LINZ does not own or operate survey vessels. The annual national survey programme is delivered through a fully contestable procurement process.

3. New charts & updates

3.1 ENCs

To date LINZ has published a grand total of 186 official NZ ENCs.

Detailed information of the full NZ ENC folio can be found on the LINZ website at <http://www.linz.govt.nz/hydro/charts/digital-charts/encs/index.aspx> and in the ENC Coverage Catalogue available on the IHO website www.iho.int.

ENCs published since the SWPHC11 Meeting		
New Zealand Total: 66	South West Pacific Total: 49	Antarctica Total: 4

ENCs scheduled for publication in 13/14 FY		
New Zealand Total: 11	South West Pacific Total: 11	Antarctica Total: 13

3.2 ENC Distribution method

LINZ is a member of IC-ENC and distributes all NZ ENCs through the Australian Regional ENC Co-ordination Centre (IC-ENC Australia).

View the IC-ENC World Catalogue here:

<http://websig.hidrografico.pt/website/icenc/viewer.htm>

3.3 RNCs

NZMariner is the product name of New Zealand's Official RNC folio, and is available for download at no charge from the LINZ website at

<http://www.linz.govt.nz/hydro/charts/digital-charts/nzmariner/index.aspx>

LINZ publishes *NZMariner* annually plus a monthly cumulative update file of corrections published in Notices to Mariners.

As part of LINZ's Hydrographic Data Infrastructure programme of works, the NZHA are migrating their current RNC portfolio to the single source database solution and will produce an unencrypted BSB file format from November 2013. The unencrypted BSB format brings a number of benefits to mariners, other chart users, software manufacturers and the NZHA.

3.4 INT charts

INT charts published since the SWPHC11 Meeting			
Chart No.	Title	Scale	Published
NZ 22 (INT 639)	Kermadec Islands to East Cape	1 500 000	June 12
NZ 23 (INT 640)	New Zealand, North Island	1 500 000	June 12
NZ 25 (INT 648)	New Zealand, South Island	1 500 000	June 12

NOTE: LINZ intends to cancel INT 630 (NZ 14630) and publish NZ 93 as an INT chart. We are set to commence a consultation process for these amendments in due course.

3.5 National paper charts

Detailed information of the full NZ chart portfolio can be found on the LINZ website at <http://www.linz.govt.nz/hydro/charts/index.aspx>

New Zealand Paper Charts published since the SWPHC11 Meeting		
New Zealand Total: 13 NC: 1 NE: 12	South West Pacific Total: 0	Antarctica Total: 0

New Zealand Paper Charts scheduled for publication in 13/14 FY		
New Zealand Total: 20 NC: 7 NE: 13	South West Pacific Total: 1	Antarctica Total: 0

Charts withdrawn until further notice (Sept 2013)

NZ 223F New Zealand and adjacent ocean areas - northern sheet

NZ 224F New Zealand and adjacent ocean areas - southern sheet

4. New publications & updates

The NZ publications are available in whole or part to download from the LINZ website at: <http://www.linz.govt.nz/hydro>

The New Zealand Nautical Almanac 2013/14 Edition (NZ 204) is also available in hardcopy from chart retailers.

Publication	Title	Published:	Edition
NZ 202	New Zealand Chart Catalogue	Electronic copy only	Ed 15
NZ 204	New Zealand Nautical Almanac	June 2013	2013/14

The New Zealand Chart Catalogue is available for download as a [PDF document](#)

5. MSI Existing infrastructure for transmission

5.1 LINZ publishes Annual Notices to Mariners (available in the Nautical Almanac and online) and fortnightly Notices to Mariners (NtM) distributed via an email subscription service (<http://www.linz.govt.nz/hydro/ntms/subscribe>) and available online at <http://www.linz.govt.nz/hydro/ntms>. Copies of New Zealand NtMs can be obtained from LINZ, including PDF format on the LINZ website; Maritime New Zealand; and chart retailers at the major ports of New Zealand.

A dedicated email address has been established for receipt of information pertinent to NtMs, ntm@linz.govt.nz.

5.2 LINZ is the NAVAREA XIV Coordinator navareaxiv@linz.govt.nz
National Coordinators are listed below:

COUNTRY	TELEPHONE	FACSIMILE	E-MAIL
New Zealand	+64 45778030	+64 45778038	rccnz@maritimenz.govt.nz
Fiji	+679 3315 266	+679 3313 127 +679 3303 251	msi@msaf.co.fj
French Polynesia	+689 541 615	+689 423 915	mrccpapeete@mail.pf
Kingdom of Tonga	+676 24 696	+676 42 467	holokaukau@yahoo.com
Western Samoa	+685 21 611	+685 28688	kalolo@mwti.gov.ws
Cook Islands	+682 20321	+682 24321	viapo.mataora@moip.gov.ck
New Caledonia	+687 292 332	+687 292 303	mrcc.nc@lagoon.nc
Wallis & Futuna			mrcc.nc@lagoon.nc

Full details are available in the 2013 NAVAREA XIV Self Assessment submitted with this report.

5.3 New infrastructure in accordance with GMDSS Master Plan

The GMDSS Master Plan is up to date as at 21 August 2013

6. C-55

6.1 Latest update (Tables)

The most recent updates to C-55 for NZ areas were submitted in October 2013 to be made available at http://iho.int/iho_pubs/CB/C-55/C-55_Eng.htm

7. Capacity Building

7.1 Offer of and/or demand for Capacity Building

- New Zealand is hosting the WWNWS6 meeting in 2014 (18-22 August).
- MSI training following the WWNWS6 meeting.
- IMO funded, IHO in-kind basic hydrography training course in Fiji, February 2014.

7.2 Training received, needed, offered

- Hosted an IHO Cat-B Nautical Cartography Training Course in February 2013.
- Attended the IALA Risk Assessment Workshop in November 2012, Sydney, Australia.
- In-house cartography training course, July-September 2012.

7.3 Status of national, bilateral, multilateral or regional development projects with hydrographic component. (In progress, planned, under evaluation or study)

- In 2011 LINZ and the Ministry of Foreign Affairs (MFAT) NZ Aid agreed an MOU to accelerate ENC production in the New Zealand area of charting coverage; and undertake a risk assessment of Pacific Island Countries to prioritise chart improvements and other safety mitigations such as aids to navigation, for maritime safety.

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8. Oceanographic activities

8.1 General

LINZ is the coordinating agency of the Ocean Survey 20/20 programme, which aims to provide New Zealand with better knowledge of its ocean territory, including New Zealand's EEZ, continental shelf and the Ross Sea region.

The vision of Ocean Survey 20/20 is to provide New Zealand with the knowledge of its ocean territory to:

- demonstrate our stewardship and exercise our sovereign rights
- conserve, protect, manage and sustainably utilise our ocean resources, and
- facilitate safe navigation and enjoyment of the oceans around New Zealand.

Details of recent projects can be found at <http://www.os2020.org.nz>

Within New Zealand, there are two Crown Research Institutes involved in oceanographic studies: NIWA, the National Institute of Water and Atmospheric <http://www.niwa.co.nz/>; and GNS Science <http://www.gns.cri.nz/>.

GNS Science operate a data portal (<http://data.gns.cri.nz/dataportal/>) allowing users to discover and access a wide range of geoscience data across New Zealand.

8.2 Tide gauge network

LINZ publishes tide predictions for Standard and Secondary Ports on the web <http://www.linz.govt.nz/hydro/tidal-info>. In October 2012 LINZ conducted a survey of New Zealand major ports to assess the quality of sea level measurements, in particular, status of tide gauge calibrations.

Between 2007 and 2010 LINZ, in partnership with GNS Science, established a network of 18 tide gauges to improve New Zealand's response to tsunami hazards. Further information is available at <http://www.linz.govt.nz/hydro/tidal-info/gauges>.

9. Other activities

9.1 Participation in IHO Working Groups

Working Groups since SHPHC11 Meeting	Date
GEBCO SCUFN-25	October 2012
HCA12	October 2012
IBSC35	May 2012
IBSC36	April 2013
CBSC11	May/June 2013

IRCC5	June 2013
TSMAD23	January 2013

Future Activities Include:	
HCA13	November 2013
CSPCWG 10	January 2014
IMO Basic Hydrography Training Course	February 2014
IBSC37	April 2014
WWNWS6	August 2014

9.2 Geospatial studies

The New Zealand Geospatial Office (NZGO) coordinates the implementation of the New Zealand Geospatial Strategy and is located within LINZ (<http://www.linz.govt.nz/geospatial-office>).

9.3 Magnetic/Gravity surveys

In 2012 LINZ embarked on a four-year project to improve the accuracy of the national vertical datum used to reference heights in New Zealand, its offshore islands and the continental shelf. Collection of aerial gravity data commenced August 2013 and is expected to be completed June 2014.

9.4 MSDI Progress

The NZGO has developed a comprehensive work programme for the implementation of a national Spatial Data Infrastructure. More information can be found at <http://www.linz.govt.nz/geospatial-office/about/projects-and-news/spatial-data-infrastructure>.

LINZ is the Steward of the New Zealand bathymetric dataset. Work is on-going to investigate the requirements for this fundamental dataset.

9.5 International

LINZ hosted the CARIS HPD and BDB User Group Meetings in October 2013

10. Conclusions

NZ is committed to hydrography in the SWP region through the ongoing work of the SWPHC, most notably through the Hydrography Risk Assessment Programme of works with MFAT NZ Aid.

LINZ contact details

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