Toitu te whenua
Land Information New Zealand

Hydrographic Services

NEW ZEALAND NATIONAL REPORT

TO THE

9TH SOUTH WEST PACIFIC

HYDROGRAPHIC COMMISSION MEETING

PORT MORESBY, PAPUA NEW GUINEA

10TH – 11TH MARCH 2009

1. Land Information New Zealand (LINZ)

1.1 New Chief Executive

LINZ has a new Chief Executive. Mr. Colin MacDonald was appointed Chief Executive in July 2008 following the reassignment of Mr. Brendan Boyle.

1.2 Changes in LINZ

In 2008 LINZ established the geo-spatial office and in doing so reviewed all geo-spatial activities across the department which included functions undertaken by the National Topographic/Hydrographic Authority (NTHA) situated in the Regulatory Group. An outcome of this review was that the NTHA was disestablished.

A subsequent hydrographic policy and regulatory review was completed in December 2008. The outcome of this review is that Customer Services undertakes all activities relating to hydrography. LINZ Hydrographic Services are now responsible for the relationship between the IHO and LINZ.

1.3 Changes to Production Systems

LINZ continues to work towards a fully digital production flow line to replace the existing analogue and raster digital system. The Hydrographic Data Infrastructure (HDI) Project document outlines the concept for the future of the LINZ Hydrographic Office. A subsequent project the Hydrographic Systems Implementation (HSI) has recently been handed over to the business. This is the implementation of a core database system (CARIS HPD) for the production and maintenance of nautical charts and information. To date 27 NZ ENCs have been produced and are available for worldwide distribution to the mariner via the IC-ENC RENC.

2. Hydrographic Surveys

2.1 Surveys have been conducted during FY07/08 and FY08/09 around the NZ coastline including a recent deployment to the South West Pacific Islands, namely the Kingdom of Tonga and Samoa.

LINZ is working with all key stakeholders including New Zealand Defence Force (NZDF), Maritime New Zealand (MNZ) and Ministry of Foreign Affairs & Trade (MFAT) to determine the priorities for the FY09/10 survey programme.

2.2 FY07/08

NZDF MOU – HMNZS Resolution		
Survey Number	**Area**	**Completed**
HYD-0512-HS17	North Island, East Coast - Shipping Lane 4	Ongoing
HYD-2007/07	Auckland Explosive Dumping Ground	November 2008
Contestable Surveys		
HYD-2007/01	South Island - Abel Tasman	July 2008
HYD-2007/02	South Island - Akaroa Harbour	June 2008
HYD-2007/03	South Island, Fiordland - Milford Sound	June 2008
HYD-2007/04	South Island, Fiordland - Dusky Sound & Breaksea Sound	June 2008
HYD-2007/05	Milford Sound Unsurveyed Area	June 2008
HYD-2007/06	Doubtful Sound & Thompson Sound	June 2008

2.3 FY08/09

NZDF MOU – HMNZS Resolution		
Survey Number	**Area**	**Completed**
HYD-2008/09-01	Wellington Harbour Entrance	November 2008
HYD-2008/09-02	Wellington Explosive Dumping Ground	November 2008
HYD-2008/09-05	Auckland Marine Disposal Site	November 2008
HYD-2008/09-08	Great Barrier Island Offshore Area	February 2009
HYD-2008/09-09	Kingdom of Tonga - Nuku'alofa Harbour & Approaches	June 2009
HYD-2008/09-10	Kingdom of Tonga - Neiafu Harbour & Approaches	June 2009
HYD-2008/09-11	Samoa - Apolima Strait, Mulifanua Harbour & Salelologa Harbour	June 2009
Contestable Surveys		
HYD-2008/09-03	Great Barrier Island	June 2009
HYD-2008/09-04	Paterson, Stewart island	June 2009

3. Nautical Charts and Publications

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

3.2 Charts Published since the 2007 SWPHC Meeting:

New Zealand		
Chart No.	**Title**	**Published:**
NZ 6821	Bluff Harbour and Entrance - Port of Bluff	July 2007
NZ 532	Approaches to Auckland	April 2008
NZ 5325	Tamaki River	January 2008
NZ 5227	Goat Island to Waiwera River	April 2008
NZ 5321	Kawau Island to Rangitoto Island	April 2008
NZ 5322	Auckland Harbour East - Calliope Wharves, Commercial Harbour	April 2008
NZ 5323	Auckland Harbour West - Chelsea Wharf, Kauri Point Wharf	April 2008
NZ 5324	Tamaki Strait and Approaches including Waiheke Island	April 2008
NZ 222	Kermadec Islands	June 2008
NZ 2225	Plans in the Kermadec Islands - Raoul Island, Curtis and Cheeseman Islands, Macauley Island	June 2008
NZ 3111	Campbell Island, Bounty Islands and the Antipodes Island Group - Campbell Island, Perseverance Harbour, Bounty Islands (1:25,000), Bounty Islands (1:100,000), Antipodes Island Group, Anchorage Bay	June 2008
NZ 5571	Poverty Bay and Approaches to Gisborne - Gisborne Harbour and Entrance	June 2008
NZ 6142	Nelson Harbour and Entrance -Port Nelson	June 2008
NZ 521	Cape Brett to Bream Tail	July 2008
NZ 4265	Kaipara Harbour	July 2008
NZ 4432	Taranaki Roads - Port Taranaki	July 2008
South West Pacific		
NZ 885	Tokelau Islands – Atafu, Nukunonu, Fakaofo,	July 2007
NZ 8655	Apia Harbour	July 2007
INT Charts		
NZ 14600 INT 600	New Zealand including Norfolk Island and Campbell Islands/Motu Ihupuku	July 2007
NZ 14601 INT 601	Tasman Sea, New Zealand to S.E. Australia	July 2007
NZ 14602 INT 602	Tasman and Coral Seas, Australia to Northern New Zealand and Fiji	July 2007
NZ 14605 INT 605	New Zealand to Fiji and Solomon Islands	July 2007

NZ 14606 INT 606	Tonga to Archipel des Tuamotu	July 2007
NZ 14901 INT 9001	Approaches to Cape Armitage 1:50,000	July 2007
NZ 14902 INT 9002	Cape Armitage 1:5,000	July 2007
NZ 14903 INT 9003	Approaches to Scott Island Scott Island	August 2008
NZ 14060 INT 60	Australasia and adjacent waters	October 2008
NZ 14061 INT 61	South Pacific Ocean (W. part)	October 2008

3.3 Charts scheduled for publication in the next six months include:

New Zealand	
Chart No.	**Title**
NZ 68	Nugget Point to Raratoka Island
NZ 69	Stewart Island
NZ 76	Western Approaches to Foveaux Strait
NZ 614	Tasman Bay - Port Motueka, Mapua
NZ 681	Approaches to Bluff and Riverton - Riverton
NZ 5113	Rangaunu Bay, Awanui River, Houhora Harbour
NZ 6144	Abel Tasman - Tarakohe Harbour
NZ 6324	Akaroa Harbour - French Bay
NZ 6821	Bluff Harbour and Entrance - Port of Bluff
NZ 7621	Milford Sound - Deep Water Basin and Fresh Water Basin
NZ 7622	Milford Sound to Sutherland Sound
NZ 7624	Charles Sound to Dagg Sound - Deep Cove
NZ 7625	Thompson and Doubtful Sounds - Neck Cove and Deas Cove, Patea Passage
NZ 7653	Breaksea and Dusky Sounds
NZ 7655	Breaksea Sound
NZ 7656	Dusky Sound - Continuation of Dusky Sound
South West Pacific	
NZ 845	Niue - Alofi Anchorage, Alofi Landing
NZ 885	Tokelau Islands – Atafu, Nukunonu, Fakaofo

3.4 ENCs published to date:

ENC Cell	**Title**	**Published:**
NZ200046	Cook Strait	November 2008
NZ300463	North Island - South Coast - Approaches To Wellington	November 2008
NZ300615	South Island - North Coast - Marlborough Sounds	November 2008
NZ404633	North Island - South Coast - Wellington Harbour	November 2008
NZ406153	South Island - North Coast - Queen Charlotte Sound	November 2008
NZ546341	North Island - South Coast - Entrance To Wellington Harbour	November 2008
NZ546342	North Island - South Coast - Lambton Harbour, Evans Bay	November 2008
NZ546343	North Island - South Coast - Point Howard And Seaview Wharves	November 2008
NZ561541	South Island - North Coast - Tory Channel Entrance	November 2008
NZ561542	South Island - North Coast - Picton Harbour	November 2008
NZ661542	South Island - North Coast - Picton Wharves	November 2008
NZ404314	North Island - West Coast - Manukau Harbour	December 2008
NZ504314	North Island - West Coast - Manukau Harbour – LPG Terminal Approaches	December 2008
NZ504315	North Island - West Coast – Approaches to Onehunga	December 2008
NZ604314	North Island - West Coast – Manukau Harbour – LPG Terminal	December 2008

NZ604315	North Island - West Coast – Approaches to Onehunga – Onehunga Wharf	December 2008
NZ200053	North Island - East Coast - Bream Head to Slipper Island including Hauraki Gulf	February 2009
NZ300532	North Island - East Coast - Approaches to Auckland	February 2009
NZ405321	North Island - East Coast - Mahurangi Harbour to Rangitoto	February 2009
NZ405324	North Island - East Coast - Tamaki Strait and Approaches including Waiheke Island	February 2009
NZ505322	North Island - East Coast - Auckland Harbour East	February 2009
NZ505323	North Island - East Coast - Auckland Harbour West	February 2009
NZ505325	North Island - East Coast - Tamaki River	February 2009
NZ653221	North Island - East Coast - Auckland Harbour East - Commercial Harbour	February 2009
NZ653222	North Island - East Coast - Auckland Harbour East - Calliope Wharves	February 2009
NZ653231	North Island - East Coast - Auckland Harbour West - Kauri Point Wharf	February 2009
NZ623232	North Island - East Coast - Auckland Harbour West - Chelsea Wharf	February 2009

3.4 ENCs scheduled for publication in the next six months include:

- NZ22 (INT 639) Kermadec Islands to east Cape,
- NZ23 (INT640) New Zealand - North Island,
- NZ25 (INT648) New Zealand - South Island,
- NZ6142 Nelson Harbour & Entrance: Port Nelson
- NZ443 Approaches to Port Taranaki
- NZ4432 Taranaki Roads: Port Taranaki
- NZ6212 Kaikoura

3.5 Publications:

3.5.1 These publications are available in whole or part to download from the LINZ website at: http://www.linz.govt.nz/hydro/nautical-info/index.aspx

Publication	Title	Published:	Edition
NZ 201	Symbols, Abbreviations, Terms used on Charts	Withdrawn 2008 (NtM 132/04 refers)	
NZ 202	New Zealand Chart Catalogue	Electronic copy only	Ed 14 Updated for NtM
NZ 204	New Zealand Nautical Almanac	June 2007	2007/08
NZ 204	New Zealand Nautical Almanac	June 2008	2008/09
NZ 204	New Zealand Nautical Almanac	In preparation	2009/10
NZ 206	New Zealand Tidal Stream Atlas	1993	
NP51	ASD New Zealand Pilot	October 2007	Ed 17

4. Maritime Safety Information (MSI)

LINZ is the NAVAREA XIV Coordinator

Year	Number of XIV message
2007	54
2008	94
2009 to date	9

Maritime New Zealand (MNZ) is the National Coordinator for New Zealand

Year	Number of CNW message
2007	136
2008	130
2009 to date	17

The national coordinators in the NAVAREA XIV area for the assessment, coordination and broadcast of MSI are MNZ, Papeete, Fiji, Tuvalu and Wallis Is.

5. Capacity Building

5.1 LINZ fully supports the IHO CBSC prime objectives and where possible, will assist, to develop future CB programmes within the SWPHC region.

5.2 Since the last SWPHC Meeting LINZ has not participated in any coordinated CB initiates within the region.

5.3 An opportunity arose for a hydrographic surveyor from the Tongan Defence Service to spend time aboard HMNZS Resolution during the recent LINZ survey in October 2008 to the Kingdom of Tonga.

6. S-55 Status of Hydrographic Surveying & Nautical Charting Worldwide – NZ Update

6.1 LINZ is in the process of establishing internal procedures to ensure the annual updating of the S-55 entries for NZ home waters and the SWPHC areas of NZ charting/survey responsibility.

6.2 The most recent updates to S-55 for NZ areas is 2003 – 2007.

7. Oceanographic Activities

7.1 NZ Continental Shelf UN Submission.

In September 2008 the UN Commission on the Limits of the Continental Shelf confirmed New Zealand's rights over approx. 1.7 million square kilometres of the seabed beyond the existing 200M EEZ. This area is more that six times the size of NZ land area.

7.2 Ocean Survey 2020

New Zealand conducted a major biological survey of the Ross Sea in the Antarctic as part of the Census of Antarctic Marine Life (CAML) and International Polar Year (IPY). The project was a major collaboration between LINZ, Ministry of Fisheries, MFAT, Antarctica New Zealand, Te Papa and the National Institute of Water & Atmospheric Research (NIWA) and New Zealand Universities. The survey was conducted by NIWA R/V *Tangaroa* on a 50 day voyage in Jan-Mar 2008 as part pf a biodiversity study. Several uncharted seamounts were mapped as part of this study.

A comprehensive MBES survey along the New Zealand north coast and Bay of Islands area has been completed by NIWA. This is Phase 1 of a two part survey to map the habitats, biodiversity and sediments of the area.

7.3 Other

NIWA R/V *Tangaroa* MBES survey to map the South Island, West Coast canyon complex system.

7.4 GEBCO

LINZ is responsible for distribution of bathymetric data within NZ area of charting responsibility to GEBCO.

8. Conclusion

The past two years have been exciting and challenging for LINZ Hydrographic Services. Most notable is the implementation of a new database system for the production of nautical charts and information and the production and distribution of official ENCs.

Many areas within the SWP, for which NZ has charting responsibility, are not adequately surveyed or charted. Some harbour charts are based on 1900s data on undetermined datum. There is much work ahead to survey and chart these areas to modern standards.

The need to continue and enhance surveying and charting under shrinking budgets is a constant challenge.

LINZ is committed to hydrography in NZ and within the region through the ongoing work of the IHO SWPHC.

9. LINZ contact details

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LINZ website http://www.linz.govt.nz/

LINZ Hydrographic Services http://www.linz.govt.nz/hydro/index.aspx

LINZ NtM Subscription http://www.linz.govt.nz/hydro/ntms/subscribe/index.aspx

10. Accompanying Images

Hydrographic Surveys FY07/09

Hydrographic Surveys FY 08/09

Hydrographic Surveys – Tonga & Samoa 2008

Overview of ENC's published to-date

Auckland ENCs

Cook Strait ENCs

Manukau ENCs

Oceanographic Activities

Ross Sea, Antarctica

NZ, West Coast, South Island

Selected Paper Charts

Scott Island – new INT chart, Antarctic

Tokelau - two NE from new survey data

Samoa - new WGS 84 metric chart from recent survey data, replacing a fathoms chart of undetermined datum.