

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, Fakaofu, | 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, Fakaofu |

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 ENC's 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 initiatives 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 than 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 of 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 ENC's.

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

LINZ Hydrographic Services
160 Lambton Quay
Private Box 5501
Wellington 6145
New Zealand

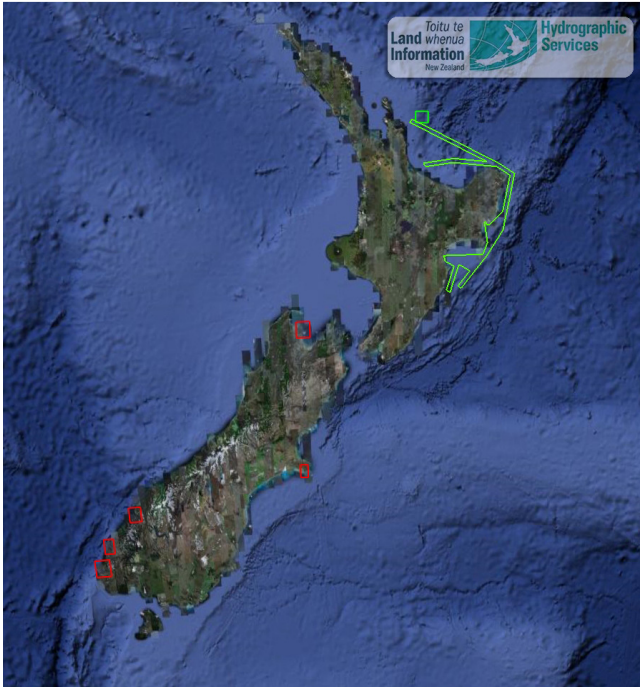
LINZ website <http://www.linz.govt.nz/>

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

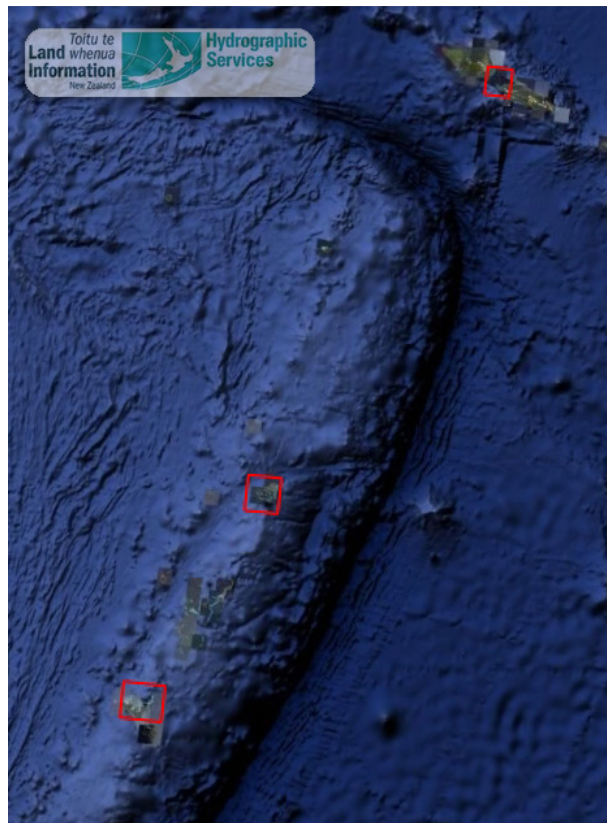
Hydrographic Surveys FY07/09



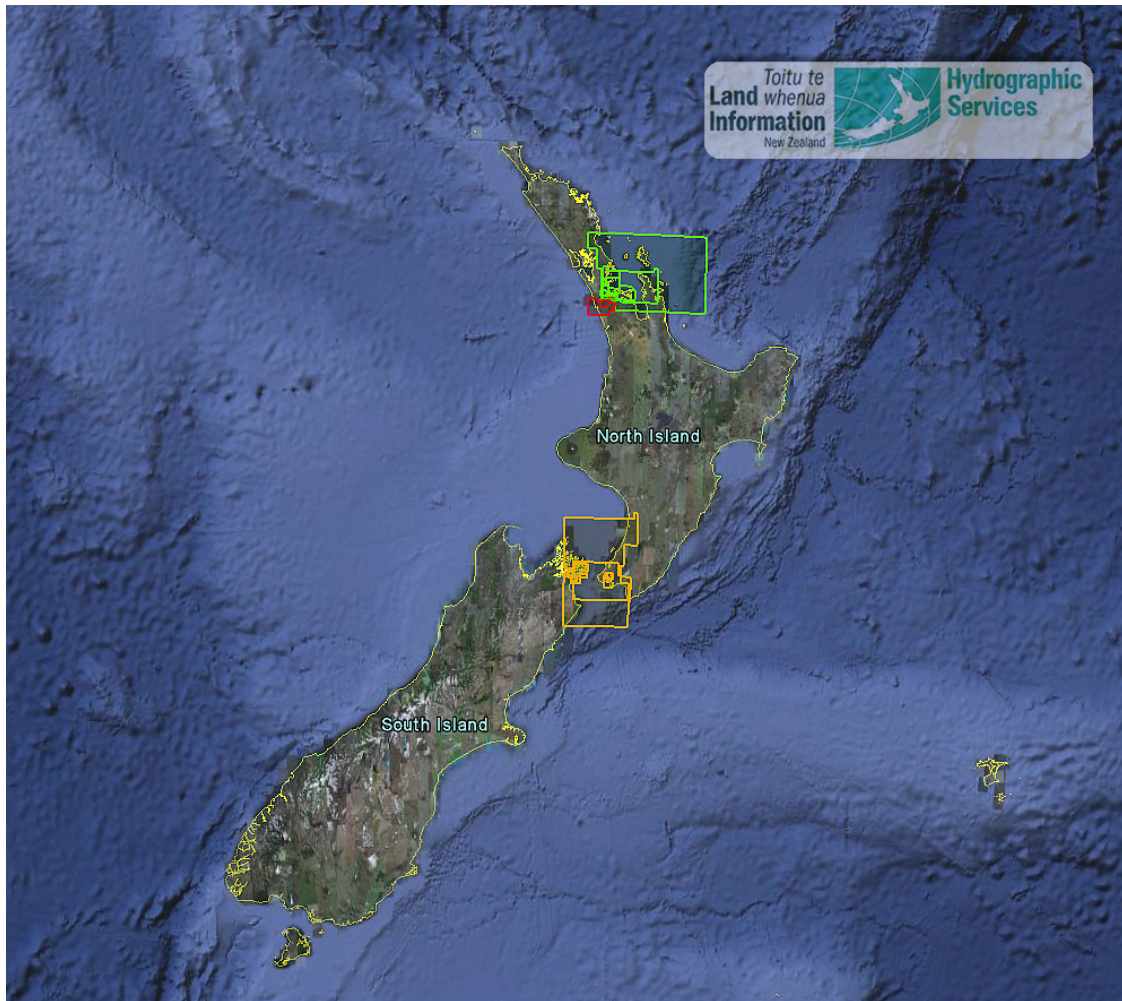
Hydrographic Surveys FY 08/09

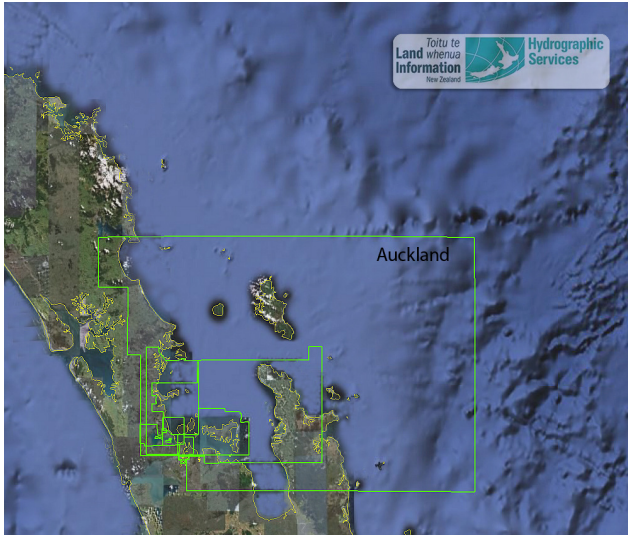


Hydrographic Surveys – Tonga & Samoa 2008

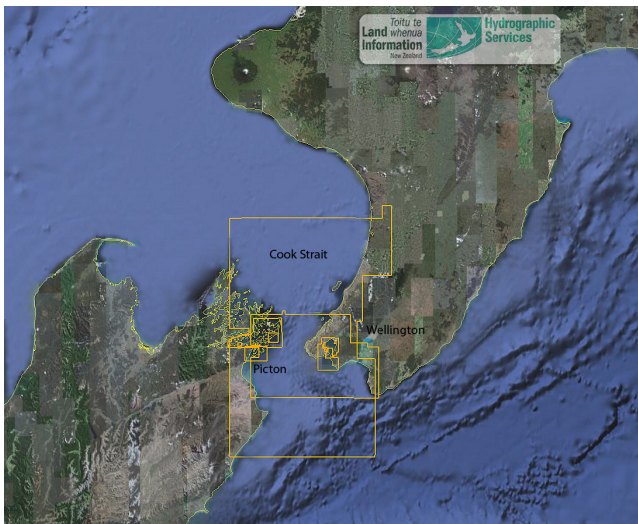


Overview of ENC's published to-date

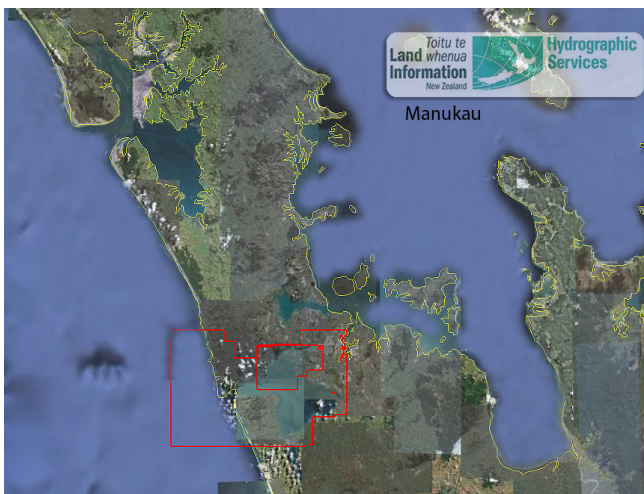




Auckland ENCs



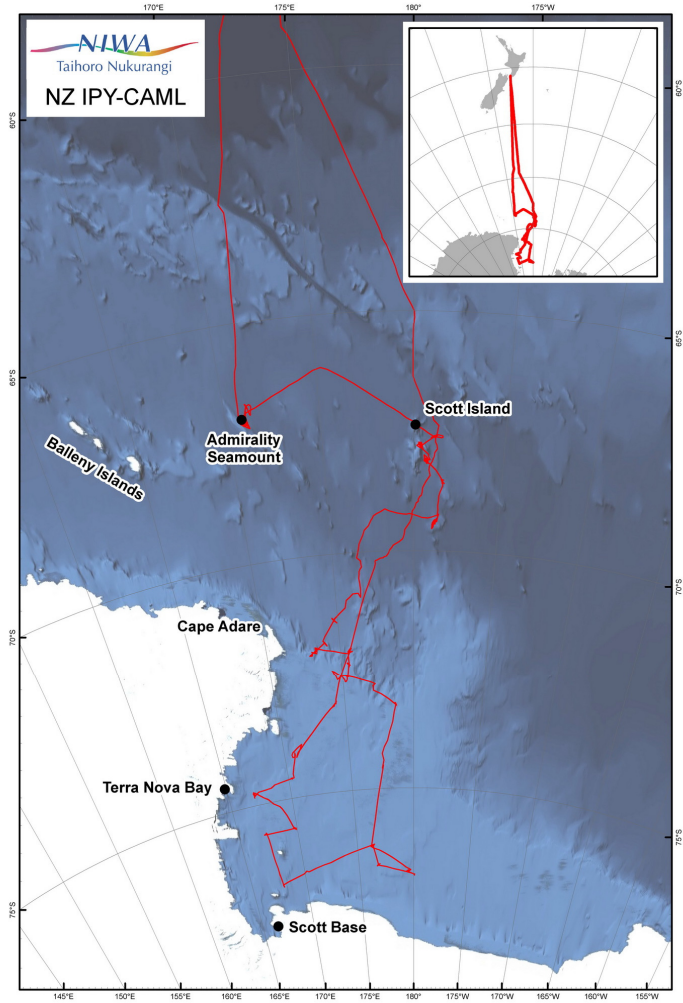
Cook Strait ENCs



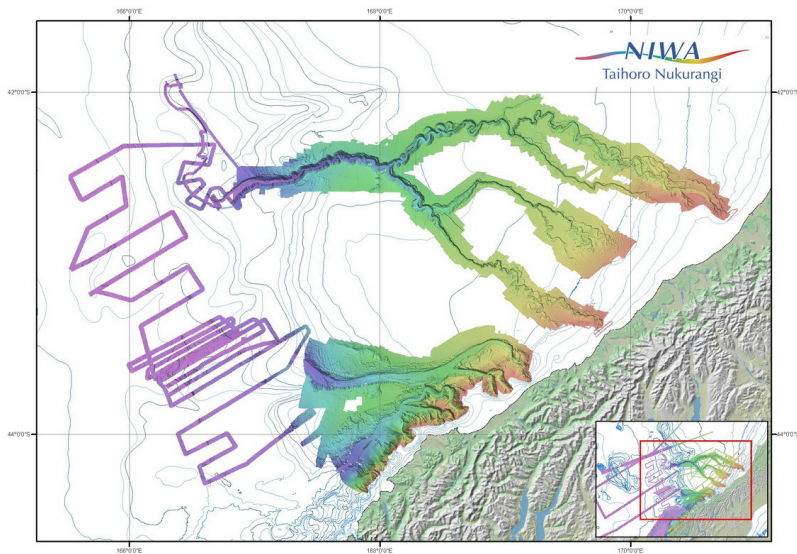
Manukau ENCs

Oceanographic Activities

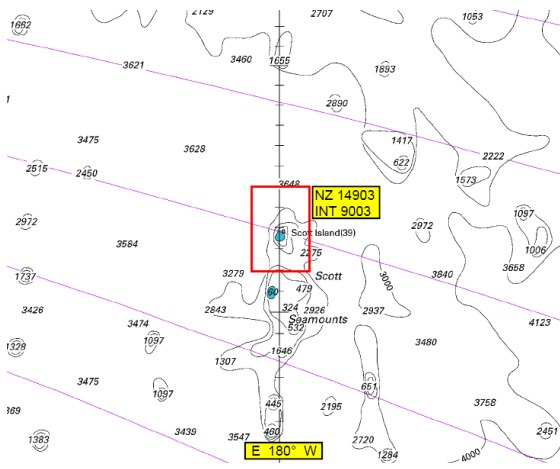
Ross Sea, Antarctica



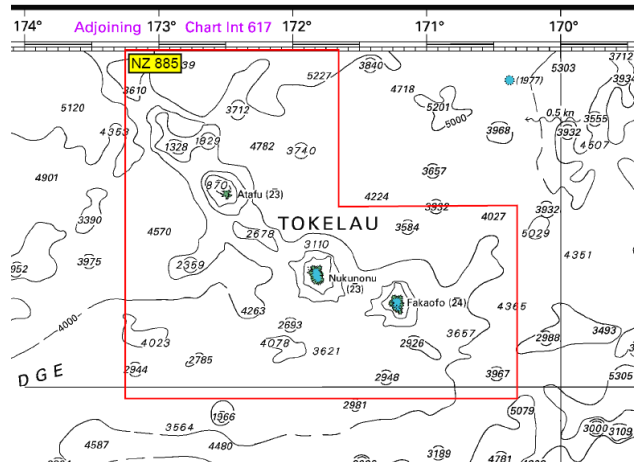
NZ, West Coast, South Island



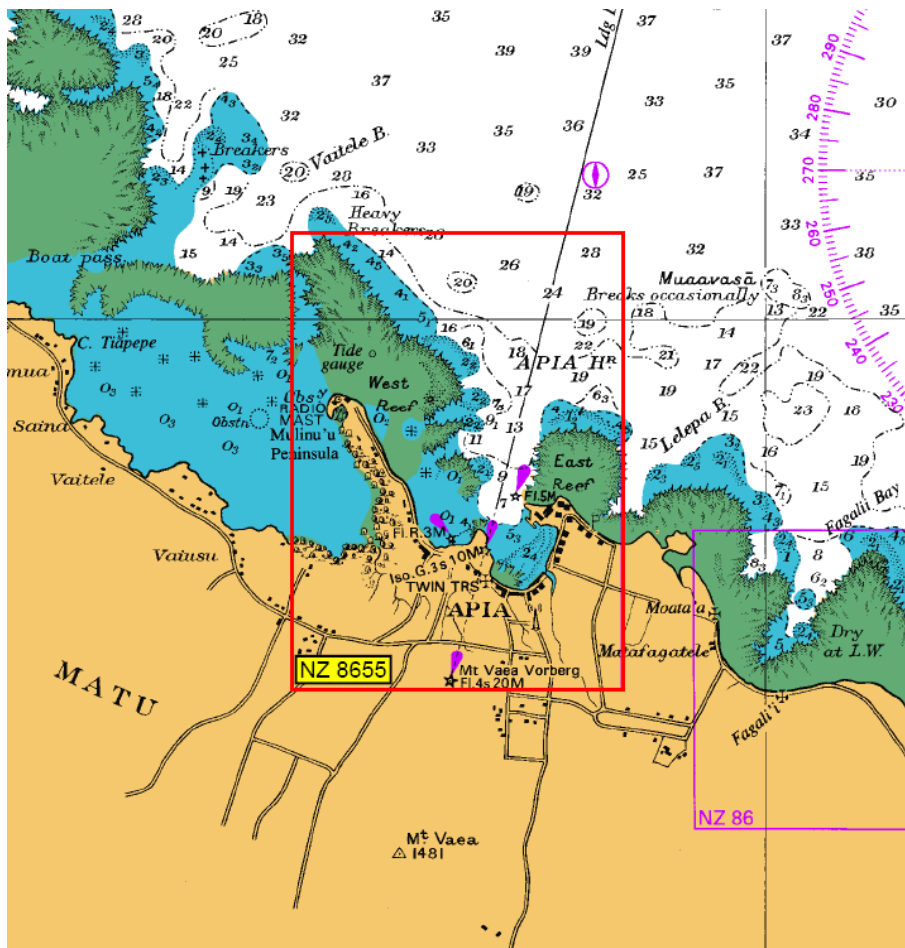
Selected Paper Charts



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.