

NEW ZEALAND NATIONAL REPORT

TO THE

9th HYDROGRAPHIC COMMITTEE ON
ANTARCTICA (HCA)

Simon's Town, Cape Town, SOUTH AFRICA

12th – 14th October 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 Geospatial Office and in doing so reviewed all geospatial 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 43 NZ ENC's have been produced and are available for worldwide distribution to the mariner via the IC-ENC RENC.

2. Hydrographic Surveys

2.1 There have been no new hydrographic surveys performed by LINZ in Antarctica.

LINZ works 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 NZ Prioritised National Survey Plan.

2.2 Recent Surveys

| LINZ | | |
|----------------------|--|------------------|
| Survey Number | Area | Completed |
| HYD0001-HS4 | Cape Adare, Cape Hallett, Possession Islands & Balleny Islands | 2001 |
| HYD 03/04-HS4 | Cape Adare to Cape Hallett | 2004 |
| Other | | |
| CSP2005-MS10-ANT | Scott Island and Balleny Islands | 2006 |
| OS2020-BS | IPY-CAML Ross Sea Biodiversity Survey | 2008 |

LINZ has received bathymetric data from the Institute of Geological and Nuclear Sciences Limited (GNS), a Crown Research Institute of New Zealand. GNS have compiled a comprehensive database of surveys over the last 3 decades which includes multi-beam and single-beam data from various sources for the region 130° E to 110° W and from 50° S to 80° S. The data include 119 surveys – 28 of these are multi-beam.

The data will be assessed for future editions of NZ charts in the Ross Dependency

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:

| New Zealand – Ross Dependency | | | |
|--------------------------------------|--|--------------|------------------|
| Chart No. | Title | Scale | Published |
| NZ 14065 (INT 65) | Ross Sea to New Zealand | 1:10M | 10/1994 |
| NZ 14900 (INT 900) | Ross Sea | 1:2M | 4/1998 |
| NZ 14901 (INT 9001) | Cape Royds to Pram Point | 1:60K | 7/2007 |
| NZ 14902 (INT 9002) | McMurdo Station and Scott Base | 1:5K | 7/2007 |
| NZ 14903 (INT 9003) | Approaches to Scott Island: Scott Island | 1:75K | 8/2008 |
| | Scott Island | 1:25K | |
| NZ 14906 (INT 9006) | Cape Adare | 1:50K | 8/2006 |
| | Cape Hallett | 1:50K | |
| | Ridley Beach | 1:15K | |
| | SeeBee Hook | 1:15K | |
| NZ 14907 (INT 9007) | Possession Islands | 1:60K | 8/2006 |
| NZ 14908 (INT 9008) | Cape Adare to Cape Daniell | 1:200K | 8/2006 |
| NZ 14909 (INT 9009) | Cape Hooker to Coulman Island | 1:500K | 6/2004 |
| NZ 14912 (INT 9012) | Balleny Islands | 1:300K | 8/2006 |
| | Balleny Seamount | 1:300K | |

There are no updates to these charts scheduled in the next six months.

3.3 RNC

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

3.4 ENCs:

| New Zealand – Ross Dependency | | | |
|--------------------------------------|--|--------------------|-----------------|
| ENC Cell | Title | Nav Purpose | Schedule |
| NZ 14065 (INT 65) | Ross Sea to New Zealand | Overview: 1 | Q1 2010 |
| NZ 14900 (INT 900) | Ross Sea | General: 2 | Q1 2010 |
| NZ 14901 (INT 9001) | Cape Royds to Pram Point | Approach: 4 | TBC |
| NZ 14902 (INT 9002) | McMurdo Station and Scott Base | Harbour: 5 | TBC |
| NZ 14903 (INT 9003) | Approaches to Scott Island: Scott Island | Approach: 4 | Q1 2010 |
| | Scott Island | Harbour: 5 | Q1 2010 |
| NZ 14906 (INT 9006) | Cape Adare | Approach: 4 | TBC |
| | Cape Hallett | Approach: 4 | TBC |
| | Ridley Beach | Harbour: 5 | TBC |
| | SeeBee Hook | Harbour: 5 | TBC |
| NZ 14907 (INT 9007) | Possession Islands | Approach: 4 | TBC |
| NZ 14908 (INT 9008) | Cape Adare to Cape Daniell | Coastal: 3 | TBC |
| NZ 14909 (INT 9009) | Cape Hooker to Coulman Island | Coastal: 3 | TBC |
| NZ 14912 (INT 9012) | Balleny Islands | Coastal: 3 | TBC |
| | Balleny Seamount | Coastal: 3 | TBC |

In accordance with the WEND Principles, NZ ENCs are distributed via the AusRENC (IC-ENC) RENC.

3.4 Publications:

3.4.1 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 202 | New Zealand Chart Catalogue | Electronic copy only | Ed 14 Updated for NtM |
| NZ 204 | New Zealand Nautical Almanac | June 2009 | 2009/10 |
| NZ 206 | New Zealand Tidal Stream Atlas | 1993 | |
| NP51 | ASD New Zealand Pilot | October 2007 | Ed 17 |

4. Maritime Safety Information (MSI)

4.1 LINZ is the NAVAREA XIV Coordinator navareaxiv@linz.govt.nz

| Year | Number of XIV message |
|--------------|-----------------------|
| 2007 | 54 |
| 2008 | 94 |
| 2009 to date | 49 |

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

| Year | Number of CNW message |
|--------------|-----------------------|
| 2007 | 136 |
| 2008 | 130 |
| 2009 to date | 64 |

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

4.2 Voluntary Ship Reporting System

The New Zealand Search and Rescue Region extends to 90° South and the NZ Search and Rescue Authorities have established a voluntary ship reporting system for all vessels operating in the NZSRR Area south of 60° South for the purposes of assisting RCCNZ in co-ordinating SAR operations in that area.

Area covered: 60°S to the southern edge of the Ross Sea bounded by 163° E to 131° W.

LINZ as NAVAREA XIV Coordinator broadcasts an annual NAVAREA XIV message advising all vessels to notify the authorities on entry and departure into the area and are encouraged to make daily position reports.

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 region.

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

6.1 LINZ is in the process of establishing procedures to ensure the annual updating of the S-55 entries for NZ areas of 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 Recent 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.

7.2 GEBCO

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

Dr Vaughan Stagpoole from GNS Science has been appointed IOC representative to the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), from New Zealand.

7.3 Tide Gauge Network

Sea level recorders at Cape Roberts and Scott Base, installed in 1991 and 2001 respectively, continue to operate. LINZ personnel undertake calibration checks at both sites every November. LINZ is responsible for the Cape Roberts station and data is freely available from the LINZ web-site on a daily basis. The site at Scott Base is part of the GLOSS core network and is operated by the National Institute of Water and Atmospheric Research Ltd (NIWA). A pressure sensor is used at Cape Roberts whilst the Scott Base station comprises a bubbler system.

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 Ross Dependency are not adequately surveyed or charted. There is much work ahead to survey and chart these areas to modern standards.

LINZ is committed to hydrography in the Southern Ocean and Ross Dependency through the ongoing work of the IHO HCA.

9. LINZ contact details

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New Zealand

LINZ Hydrographic Services
<http://www.linz.govt.nz/hydro/index.aspx>
LINZ NtM Subscription
<http://www.linz.govt.nz/hydro/ntms/subscribe/index.aspx>
LINZ NAVAREA XIV Coordinator navareaxiv@linz.govt.nz



Antarctic Treaty Meeting of Experts

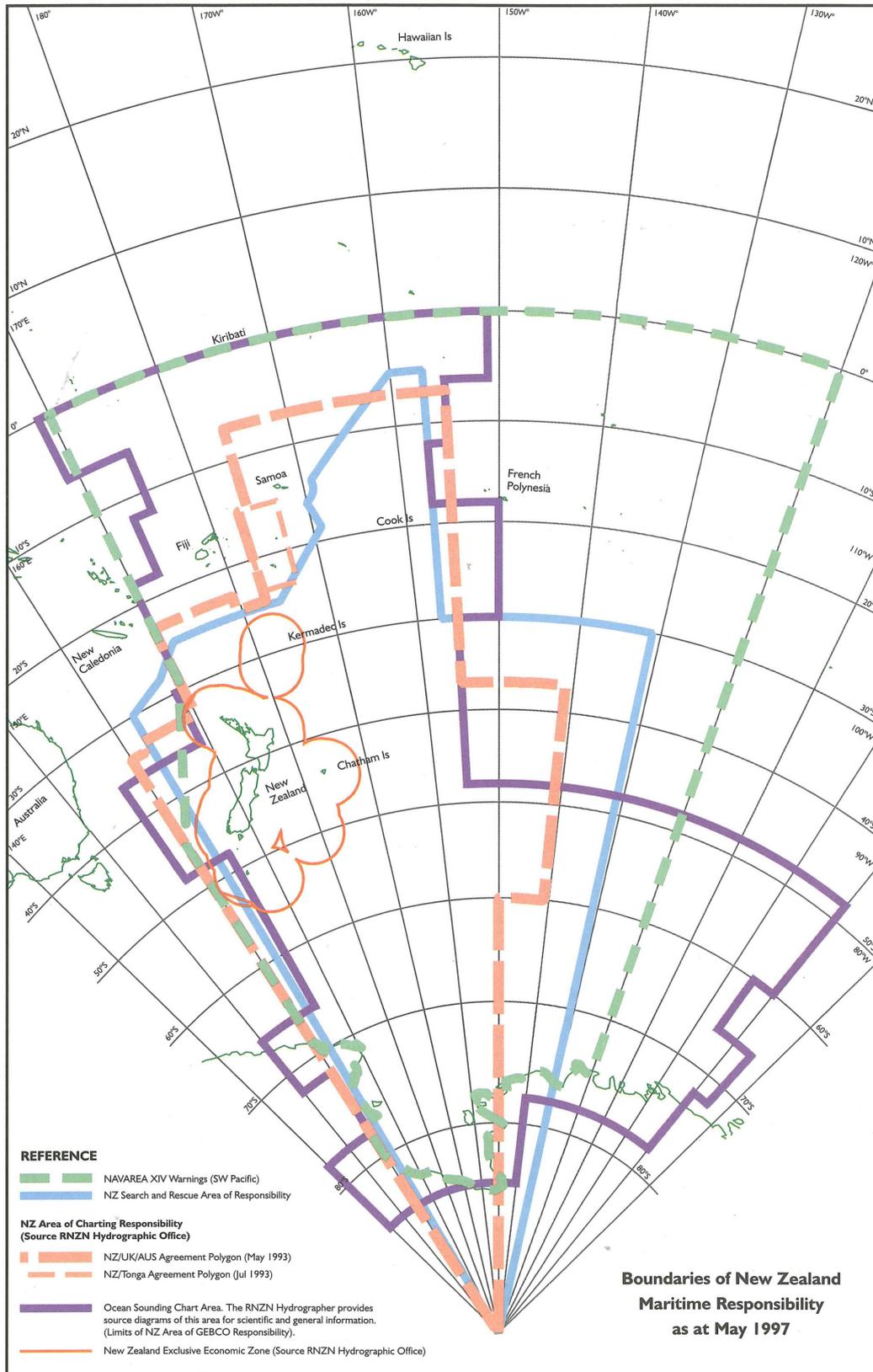
9 - 11 DECEMBER 2009
WELLINGTON, NEW ZEALAND

The New Zealand Ministry of Foreign Affairs & Trade will host an ATME meeting on the Management of Ship-Borne Tourism in the Antarctic Treaty Area in December 2009.

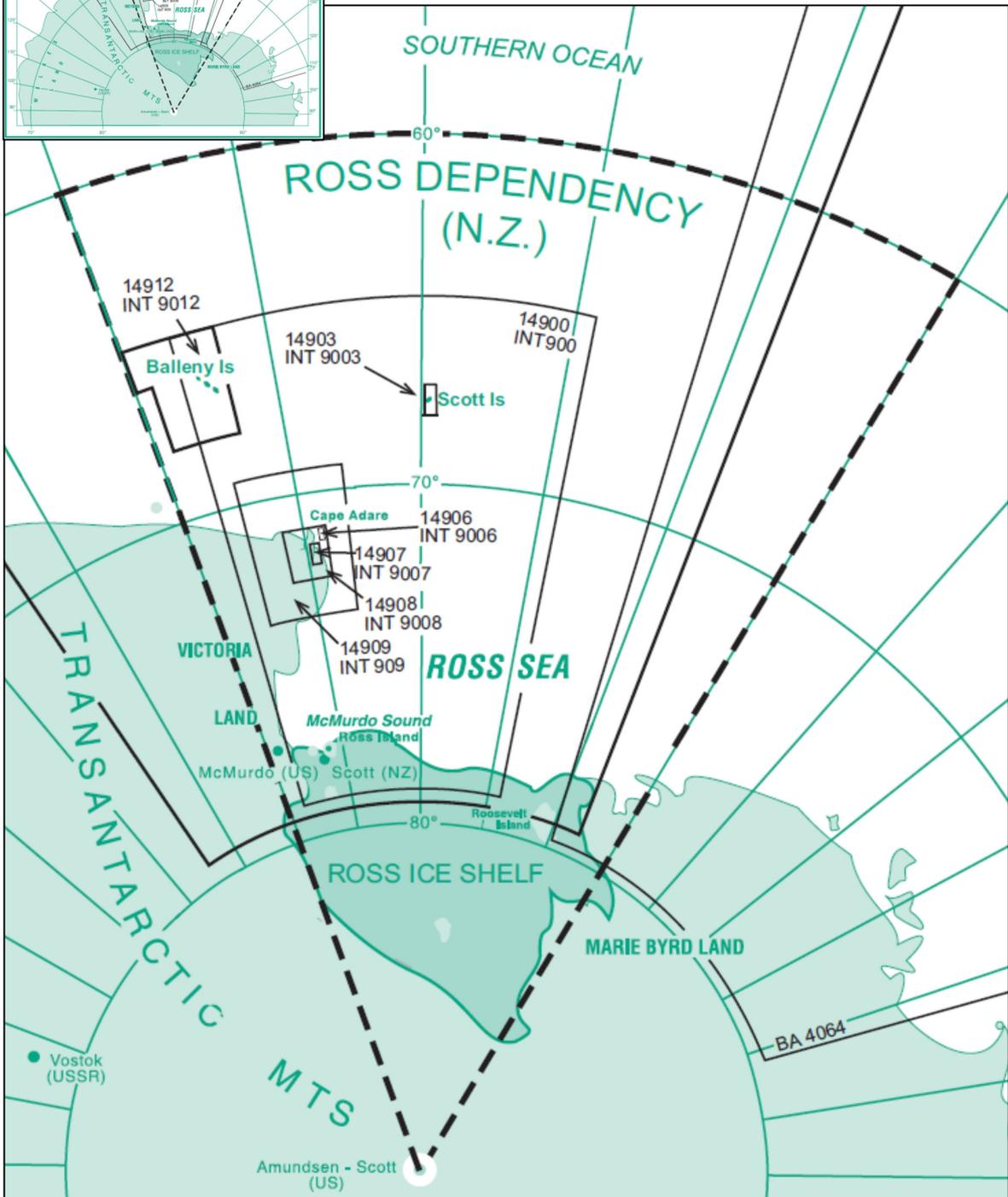
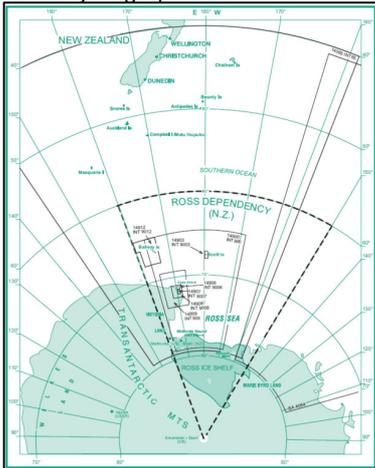
- The meeting will cover the full spectrum of issues relating to managing ship-borne tourism in Antarctica. Hydrography will be a key topic at the meeting, given the spate of groundings over the past two seasons and the considerable lack of adequate charting for the Southern Ocean. More details can be found in the agenda. The IHO/HCA will be represented by IHB Director Hugo Gorzigilla.
- New Zealand encourages the participation of experts in issues relating to shipping in Antarctic waters. If you are interested in attending, you should contact your host country's Antarctic Treaty Consultative Meeting Contact Point and register online at www.mfat.govt.nz/atme2009

10. Accompanying Images

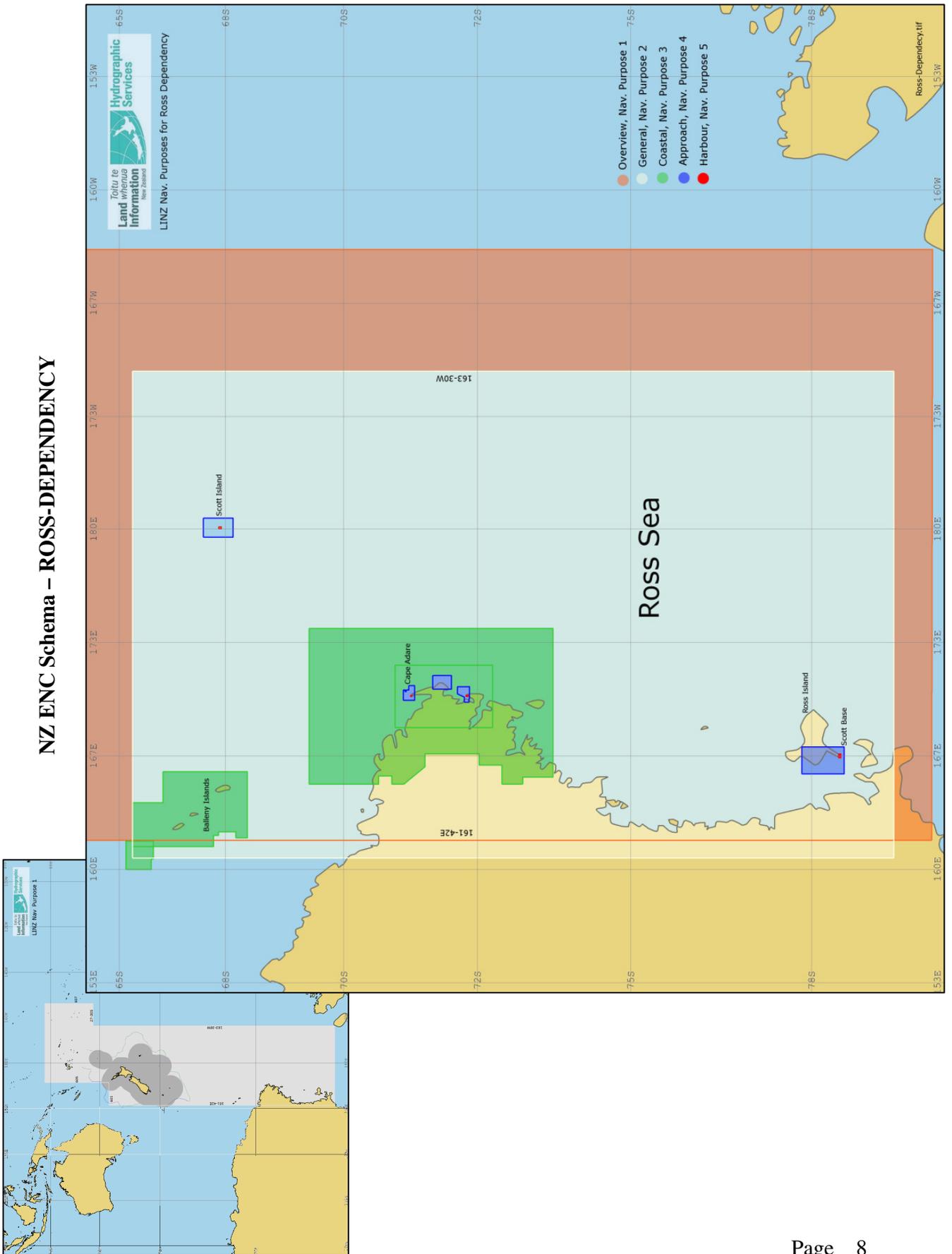
Boundaries of New Zealand Maritime Responsibilities



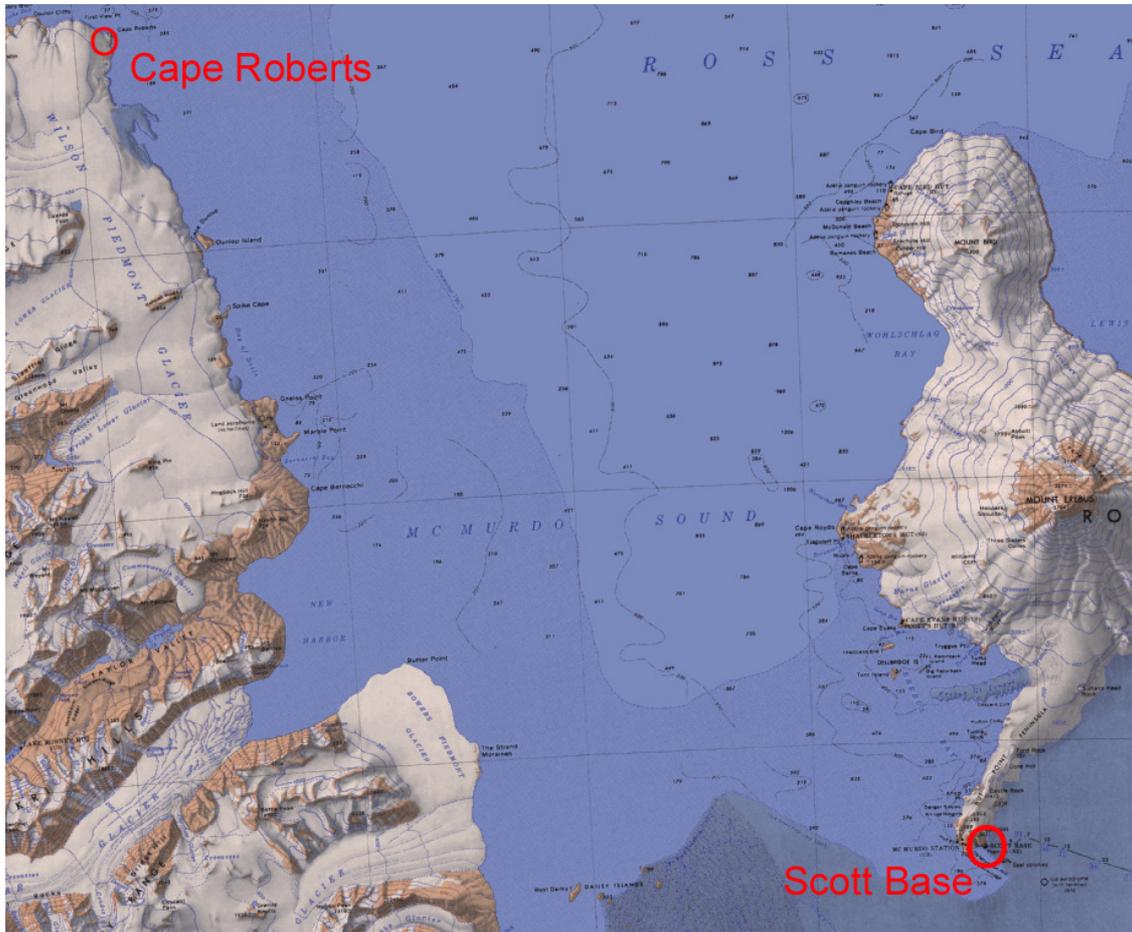
NZ CHARTS – SOUTHERN OCEAN & ROSS DEPENDENCY

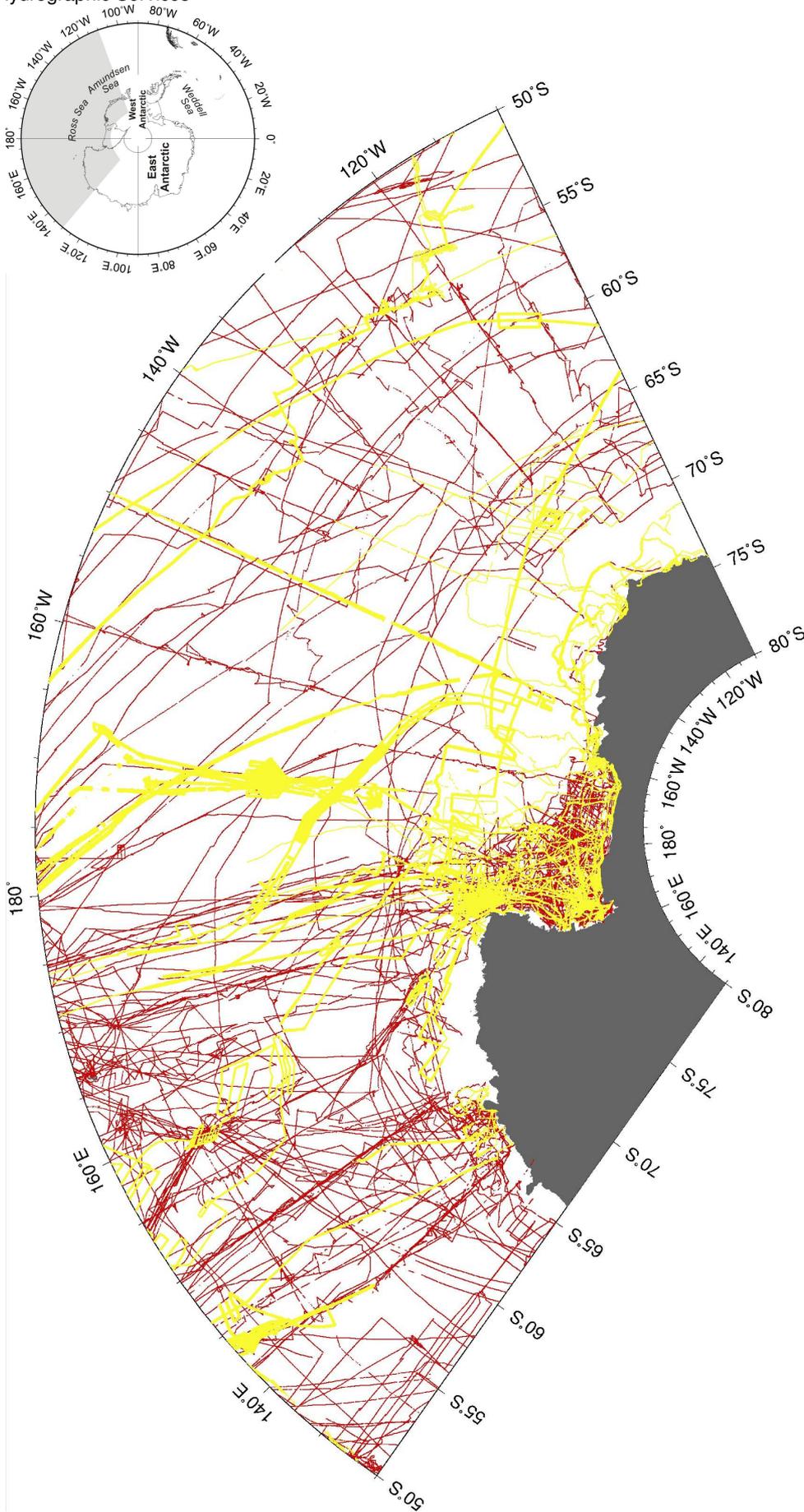


NZ ENC Schema – ROSS-DEPENDENCY



Tide Gauge Network - Sea level recorders at Cape Roberts and Scott Base





Compilation of Open-file Bathymetric Data for the Ross Sea Region of Antarctica
Distribution of data - yellow areas show MBES coverage and red lines represent SBES.
Source: GNS Consultancy Report 2009/183, August 2009.

LINZ Hydrographic Services
Oceanographic Activities
2008 Ross Sea, Antarctica

