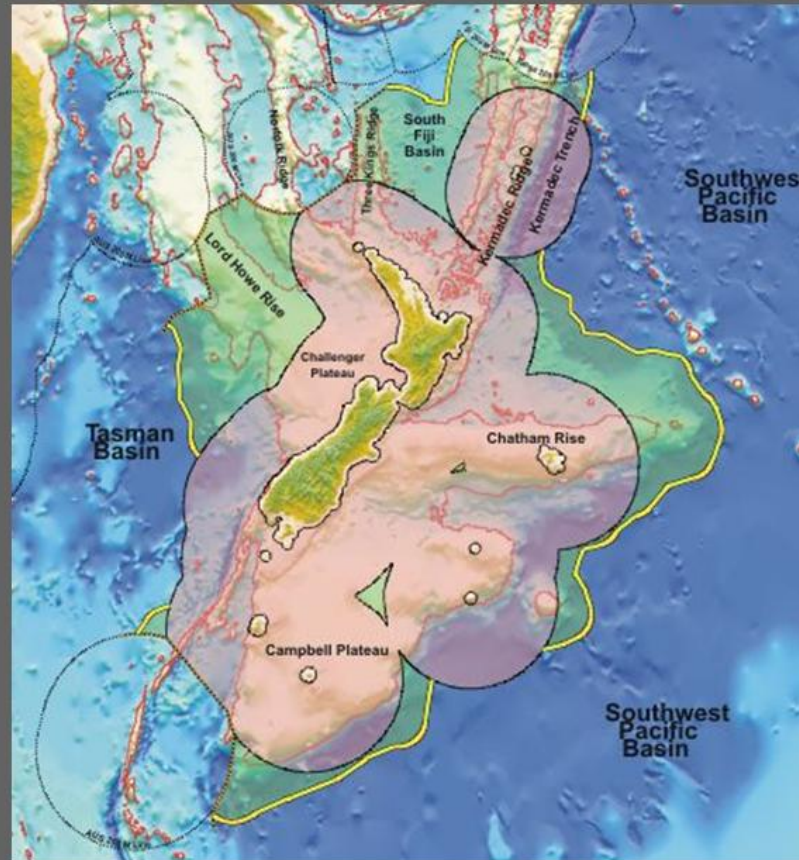


New Zealand's Continental Shelf Programme

Ray Wood



New Zealand's EEZ and Continental Shelf



The process

- 1945 Truman proclamation
- 1958 First UN conference on law of the sea
- 1970 UN declaration of principles governing the seabed and ocean floor
- 1982 Convention is adopted and passed into law
- **1996 New Zealand ratified the Convention**
- 10 years to define continental shelf and make a submission to the UN commission

The process

- **1996** **New Zealand ratified the Convention**
- 1997-98 Desktop review of existing data – extensive targeted survey programme proposed
- 1998 New Zealand Government commits to project - total budget \$44M
- 1996-2002 Survey programme completed
- 2001-2004 Boundary negotiations with Australia
- 2002-2006 Regional data interpretation and reporting
- **April 2006** **Submission sent to UN**
- August 2006 Delegation appears before CLCS
- April 2008 Approval from CLCS subcommission

Continental shelf submission

Submission structured as suggested by the CLCS Guidelines

- executive summary
- main body
- supporting and scientific data

2,683 pages long

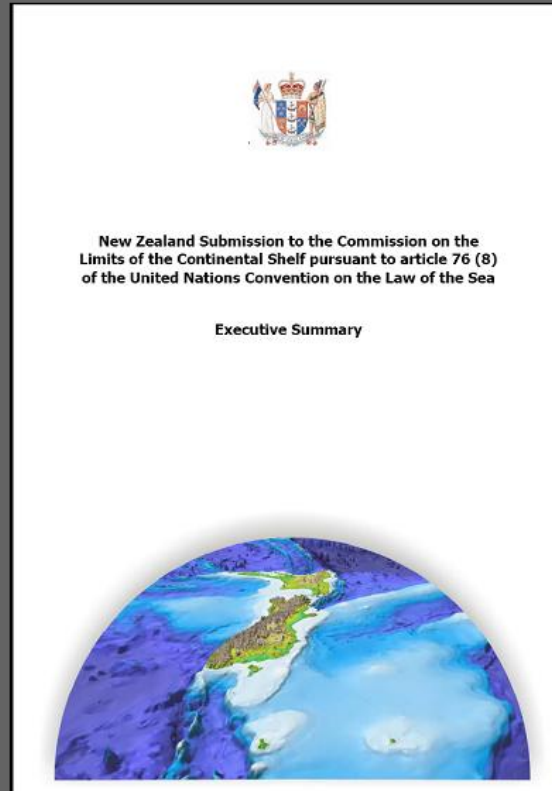
72 charts

90 seismic sections

4 CD/DVD's of digital data



Executive summary



http://www.un.org/Depts/los/clcs_new/submissions_files/submission_nzl.htm

Executive summary

Overview of New Zealand and the UNCLOS project

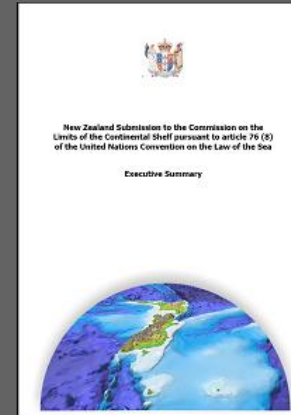
Provisions of article 76

Relevant maritime delimitations

Detail summary for 4 regions

- East
- South
- West
- North

List of fixed points comprising outer limits of NZ's continental shelf



New Zealand UNCLOS agencies

A successful submission requires close cooperation of scientists, lawyers, diplomats and administrators

Land Information New Zealand (LINZ)

Ministry of Foreign Affairs and Trade (MFAT)

Institute of Geological and Nuclear Sciences (GNS Science)

National Institute of Atmospheric and Water Research (NIWA)

Royal New Zealand Navy (RNZN)

Communication

Presented papers at conferences (e.g., ABLOS)

Attended technical meetings on article 76

Exchanged ideas with other countries

Published booklet

- New Zealand's Continental Shelf and UNCLOS article 76

Maintained Web page

- www.unclosnz.org.nz

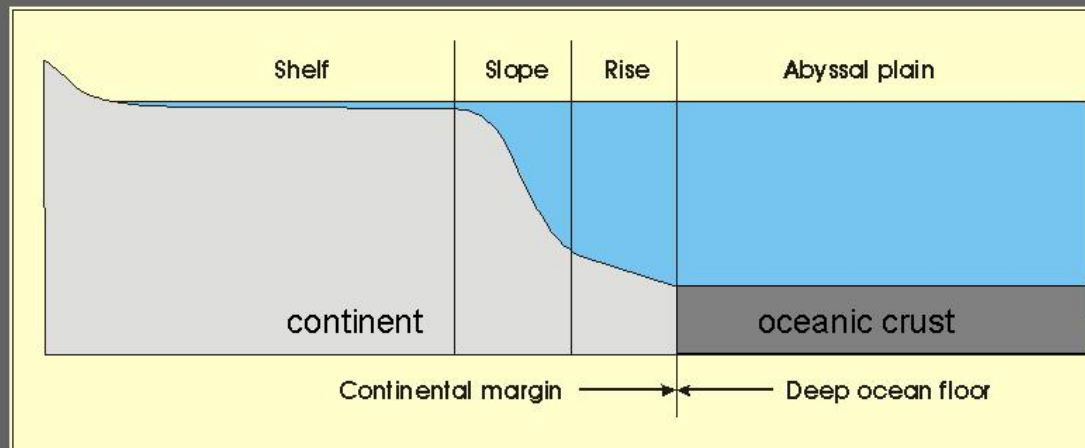
*(the opinions on the web are solely those of the technical members of the project team
and do not represent the official policy of the New Zealand government)*

Outer edge of the continental margin

article 76 (3):

“Continental margin comprises the submerged prolongation of the land mass of the coastal State”

It “consists of the sea-bed and subsoil of the shelf, the slope and the rise. It does not include the deep ocean floor with its ridges or the subsoil thereof”



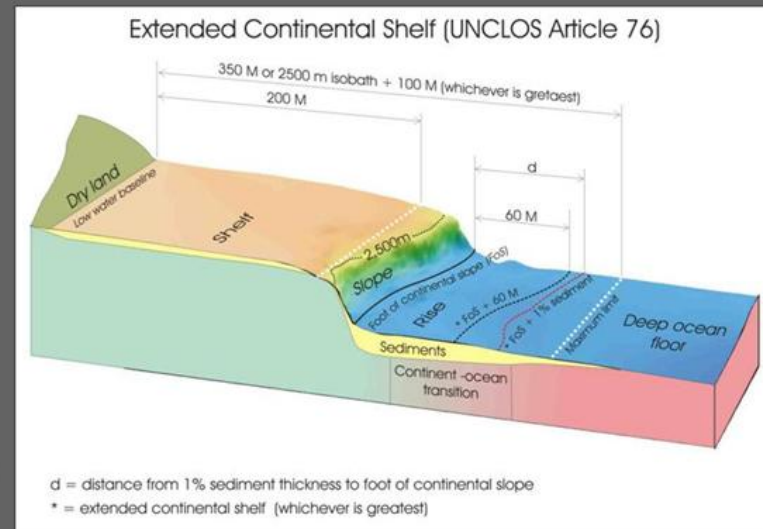
Outer edge of the continental margin

article 76 (4(a)):

“For the purposes of this Convention, the coastal State shall establish the outer edge of the continental margin ... by either:

(i) a line ... at which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance ... to the foot of the continental slope; or

(ii) a line ... to fixed points not more than 60 nautical miles from the foot of the continental slope.”

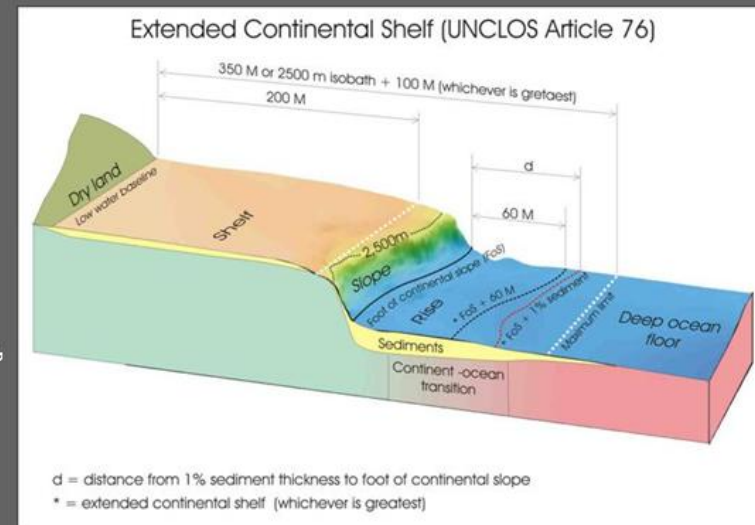


Outer limits of the continental shelf

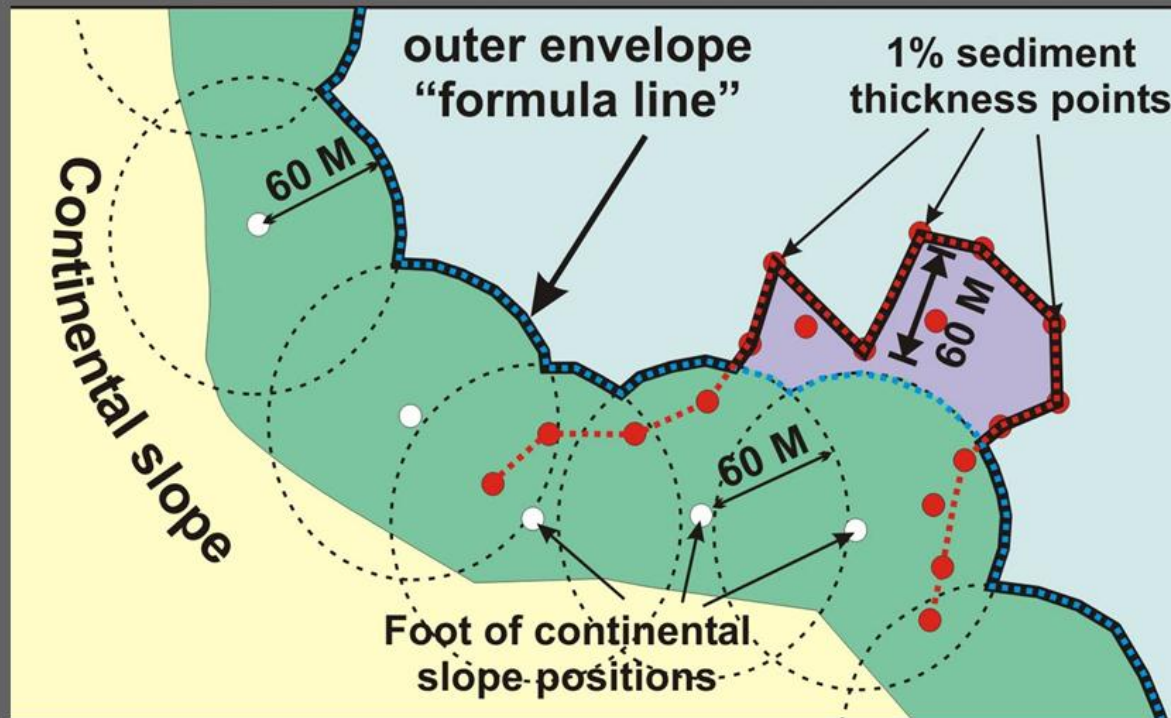
article 76 (5):

The fixed points comprising the line of the outer limits of the continental shelf shall not exceed

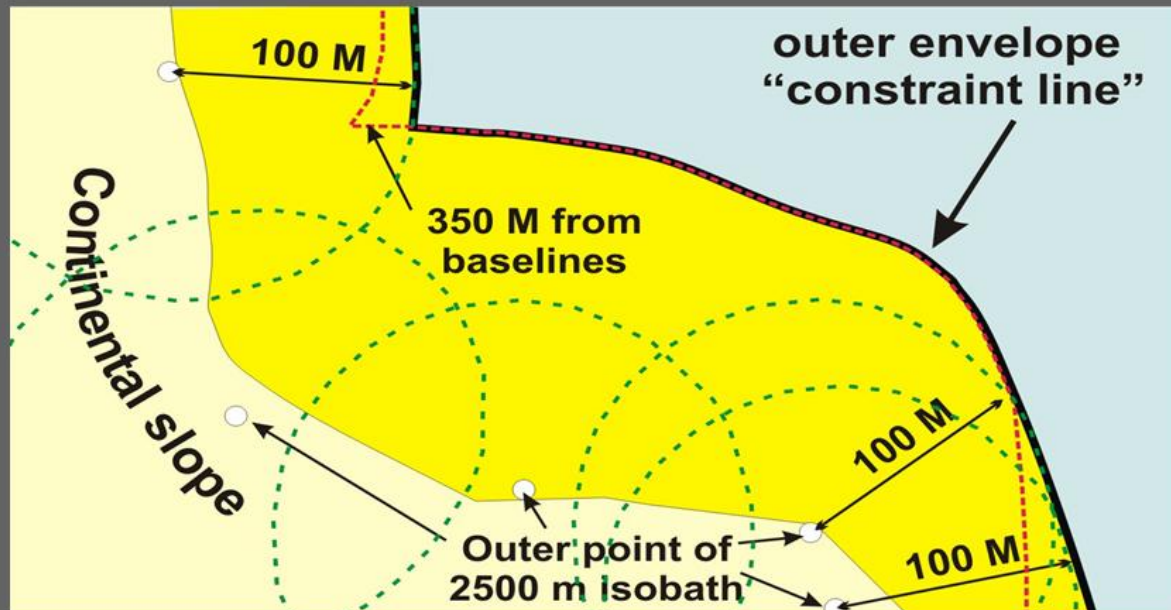
- 350 nautical miles from the baselines,
- or
- 100 nautical miles from the 2,500 metre isobath



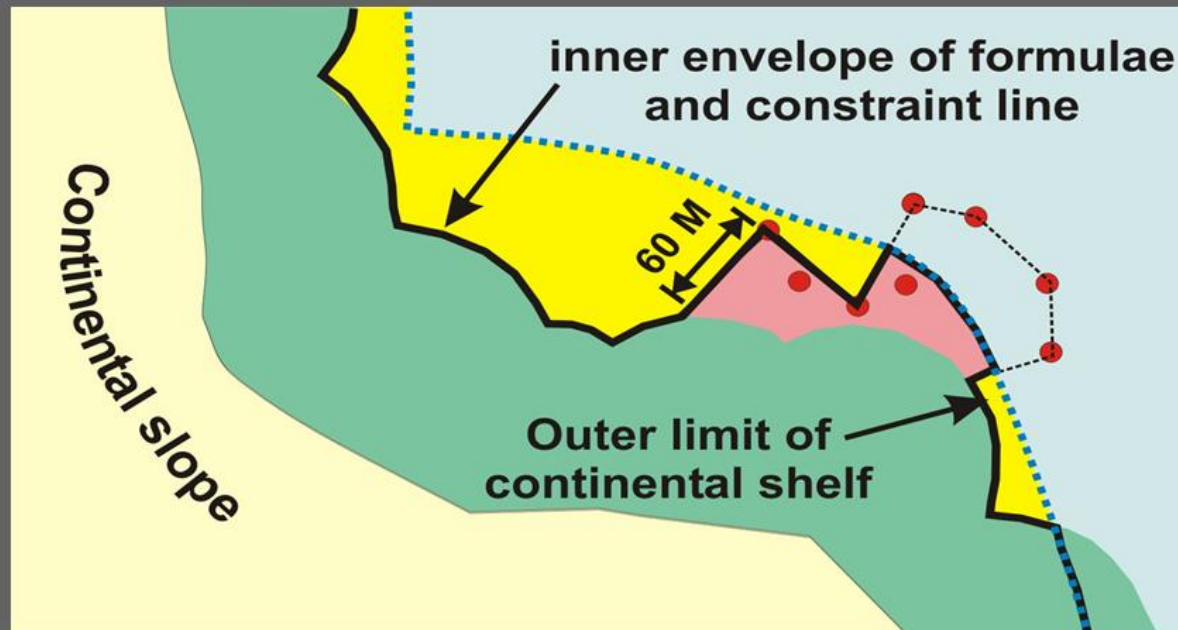
Outer limits of continental margin



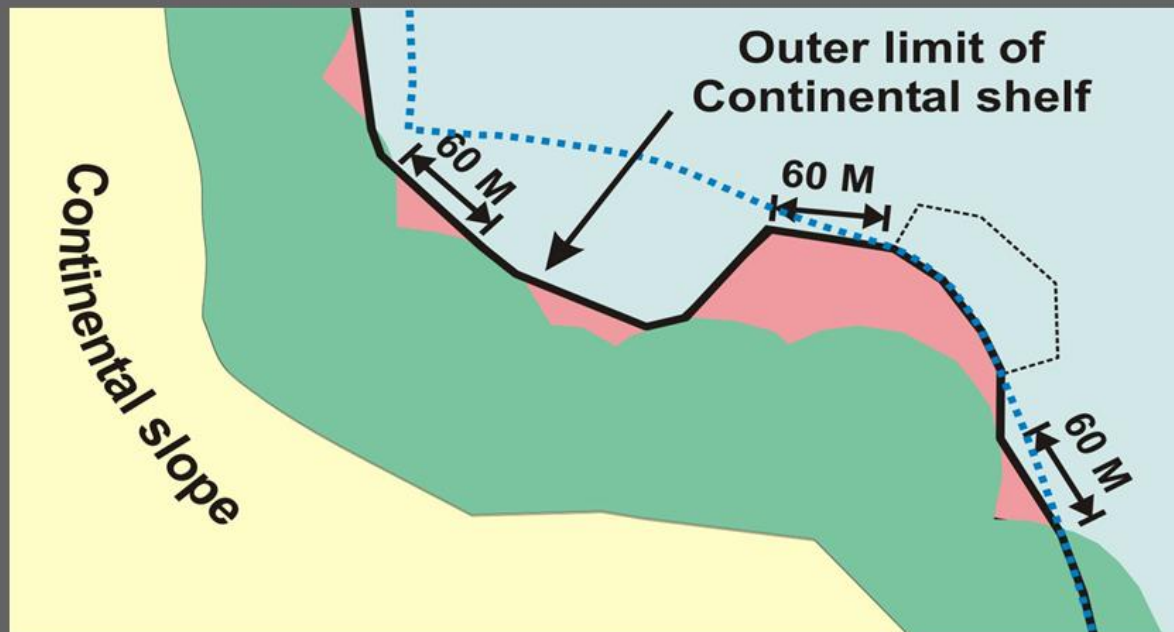
Constraint lines



Intersection of margin and constraints

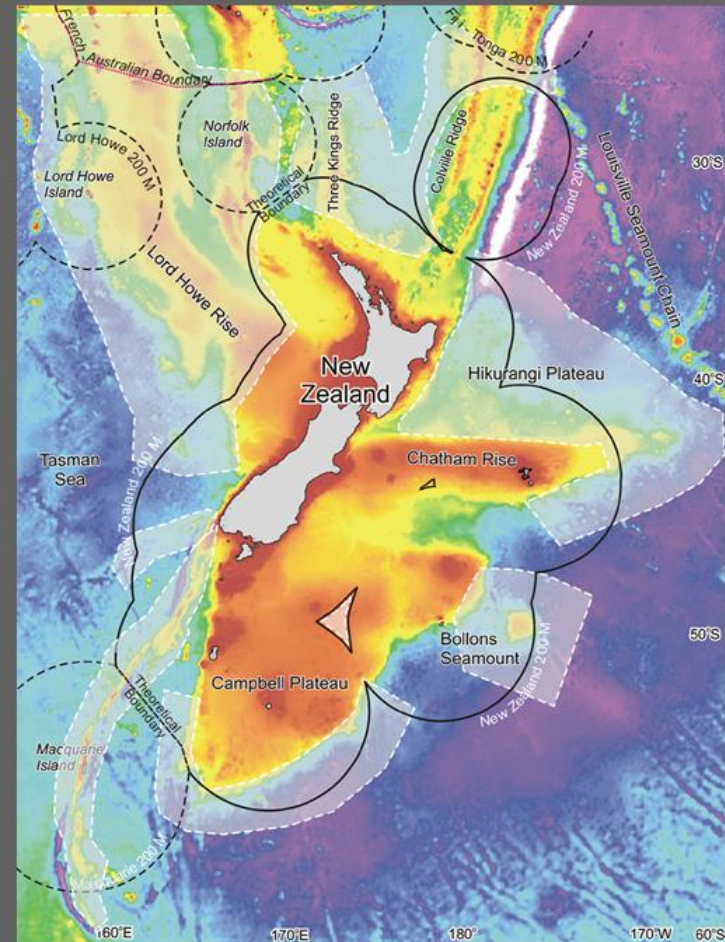


Outer limits of the continental shelf



Desktop study

The desktop study took 2 years and identified large areas beyond 200 M that might be part of New Zealand's legal continental shelf



UNCLOS surveys

Survey programme – 350 days
at sea

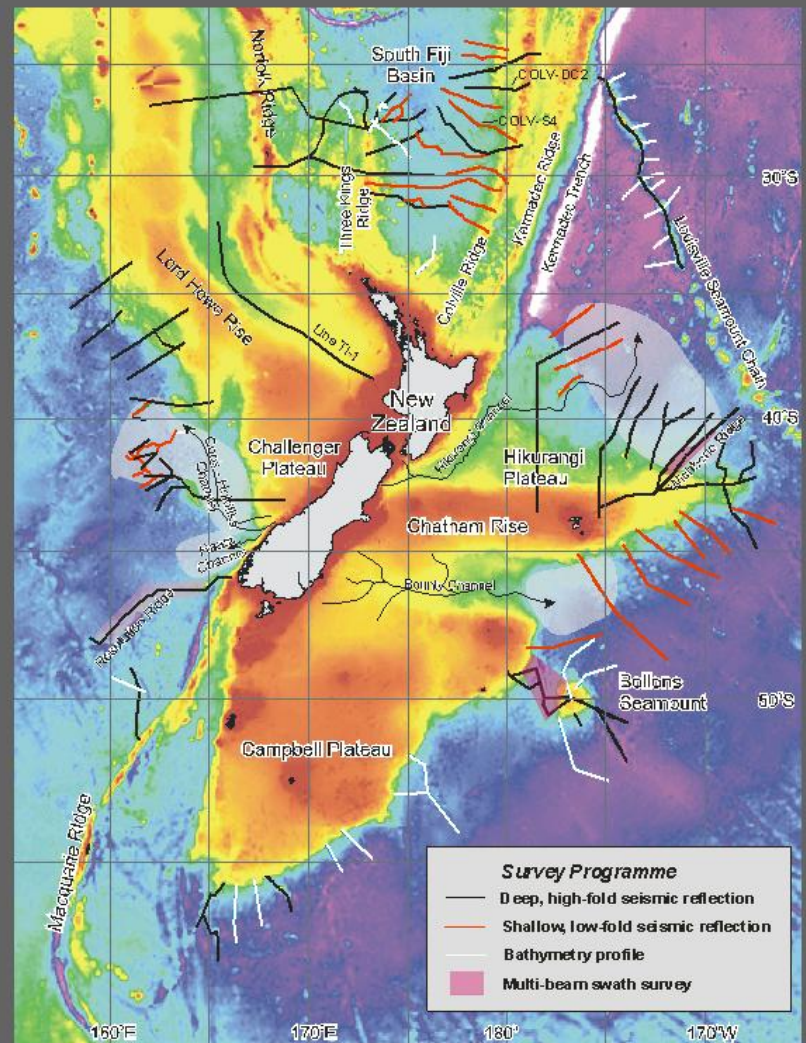


deep penetration, high-fold, multi-channel seismic reflection	12,900 km
shallow penetration, low-fold multi-channel seismic reflection	7,000 km
multi-beam seafloor swath mapping	80,000 km ²
potential magnetic and gravity field data	20,000 km
rock dredging	12 sites

UNCLOS surveys

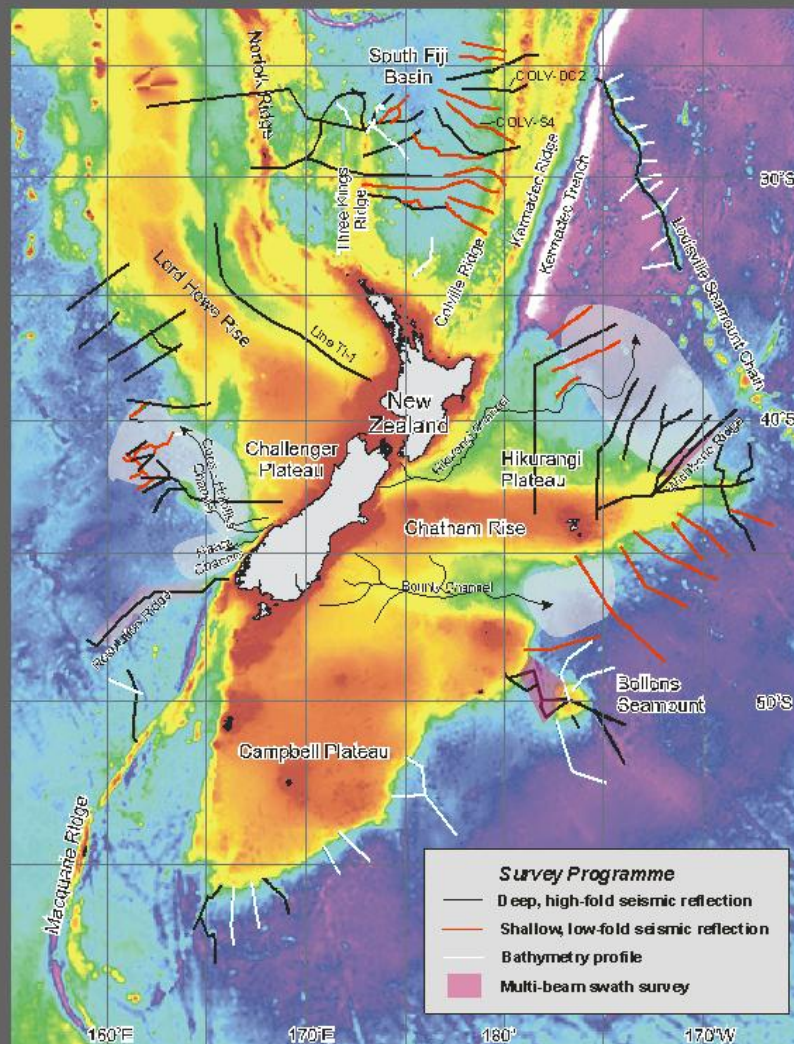
Surveys carefully planned to maximize value and minimize cost

- Vessel tracks chosen to investigate particular aspects of article 76
- Vessel capability chosen appropriate to objective



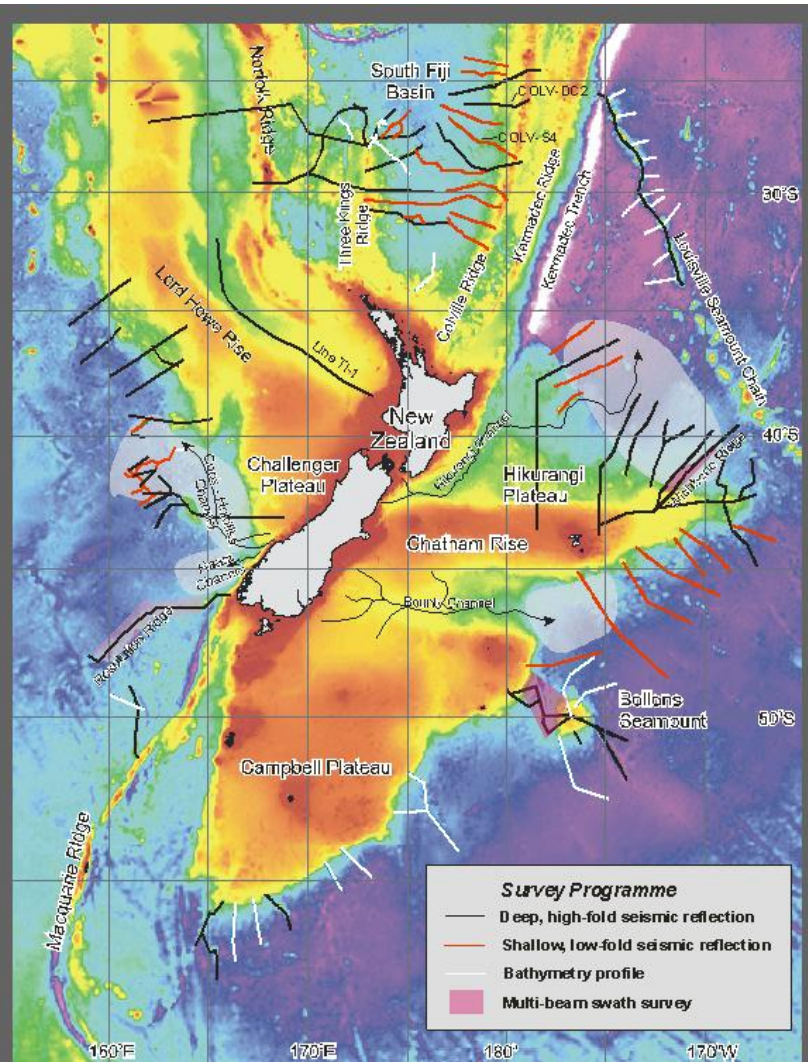
Deep high-fold MCS

- Two survey programmes (1996, 2000-2001)
- Total of ~12,900 line km
- Used to establish FoS, 1% sediment positions, and crustal structure (nature and position of continent-ocean transition)



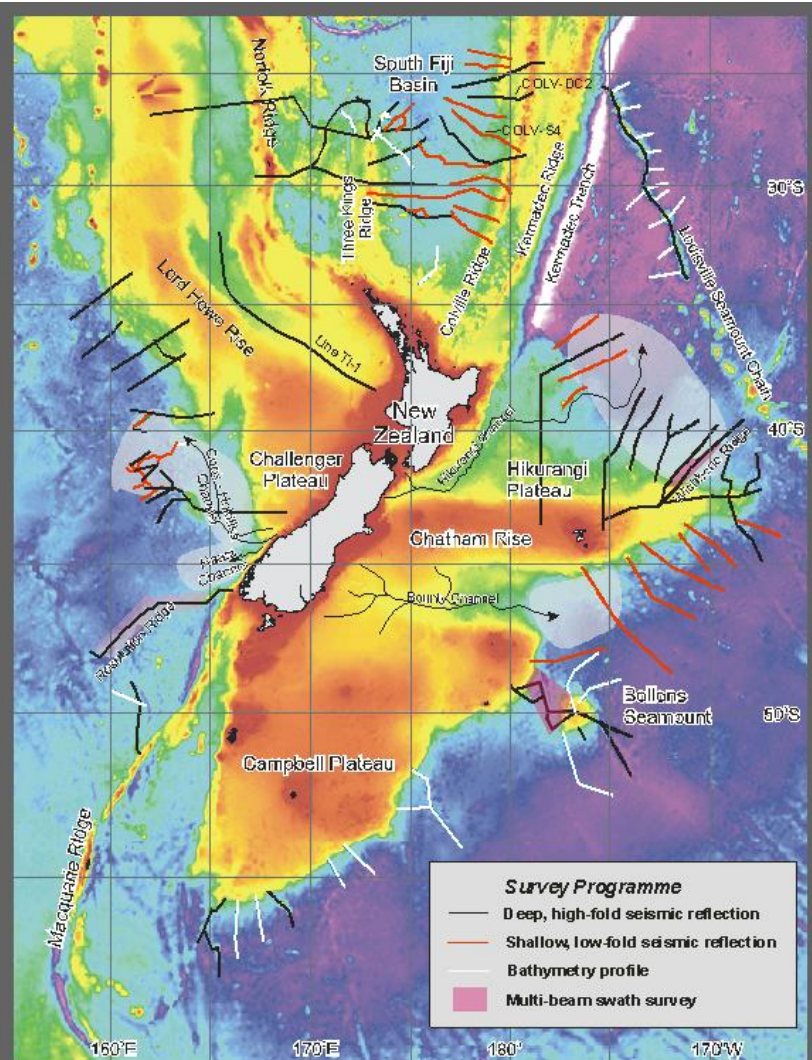
Shallow Low-Fold MCS

- Three survey programmes completed by *Tangaroa* in June 2002
- Total of ~7000 line km
- Used to establish FoS and 1% sediment positions



Swath Bathymetry

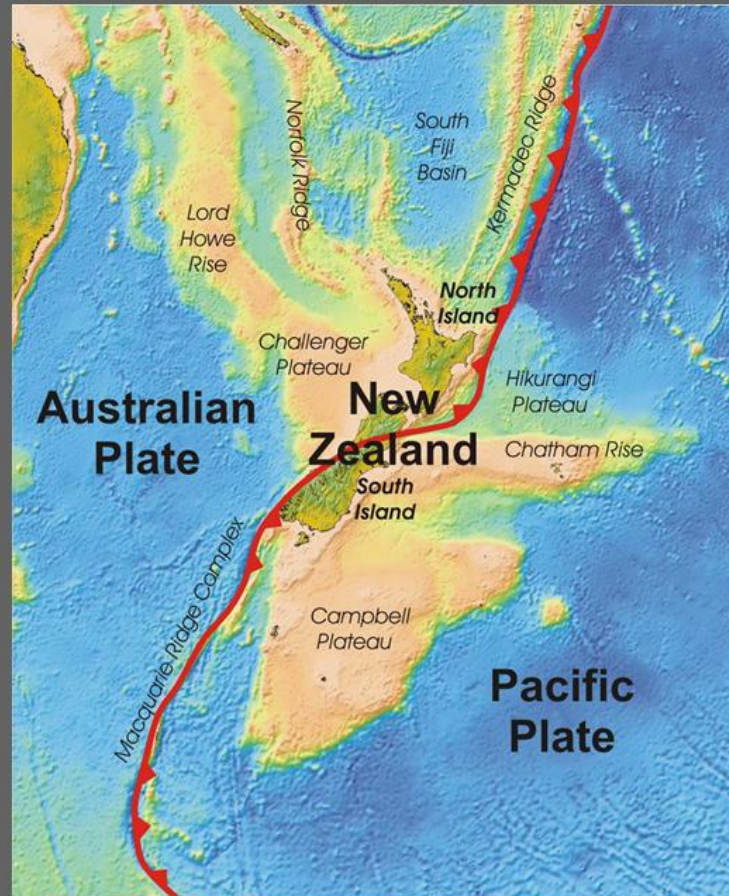
- Survey programmes covered Resolution Ridge, Bollons Seamount and Wishbone Ridge
- Map complex connection to the NZ margin



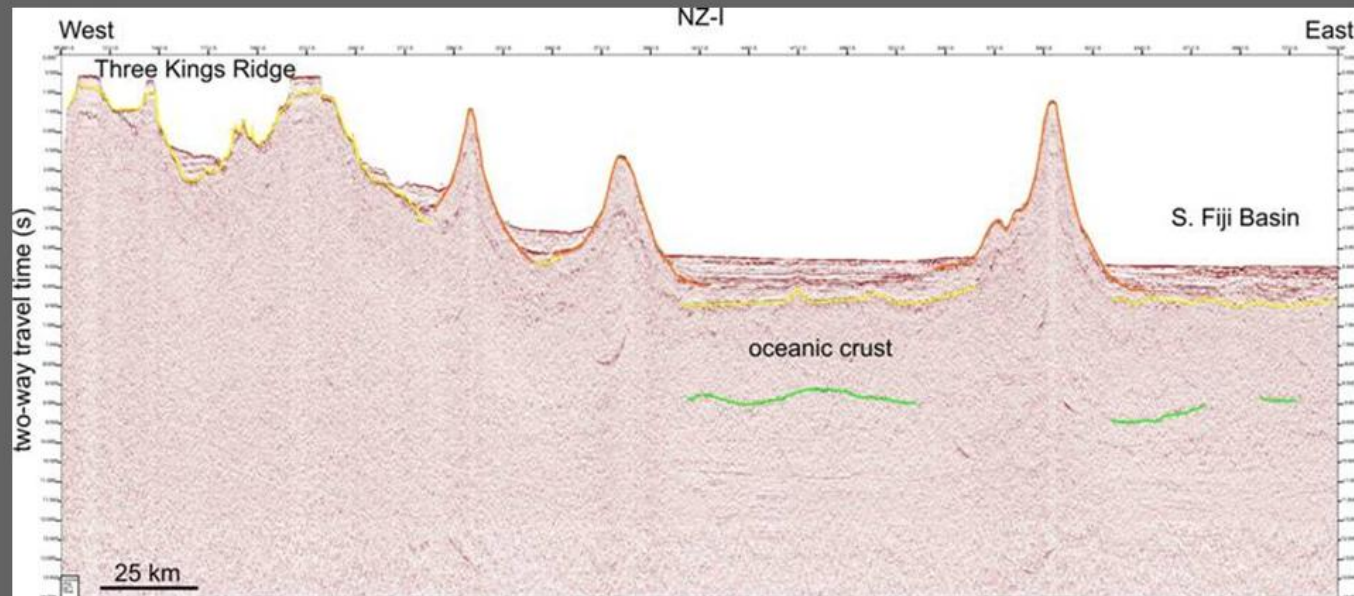
Ambiguities in article 76

- Prolongation of the land mass
- Evidence to the contrary
- Ocean ridges, submarine ridges & submarine elevations
- Isolated 2,500 m contours
- Computation of sediment thickness

New Zealand is astride an active plate boundary



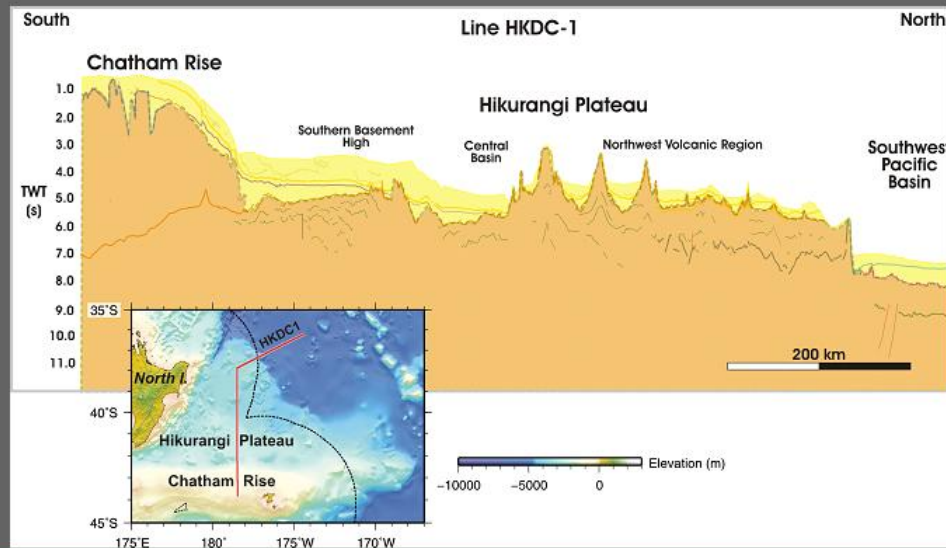
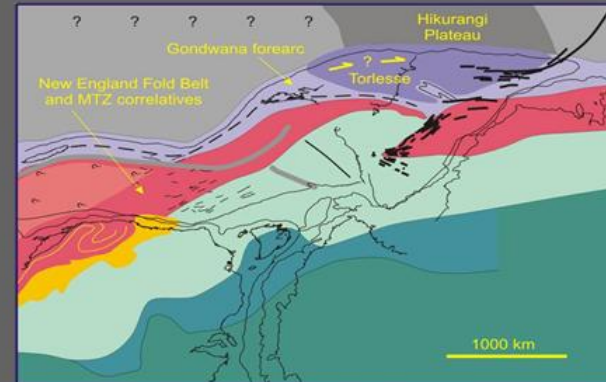
A real margin



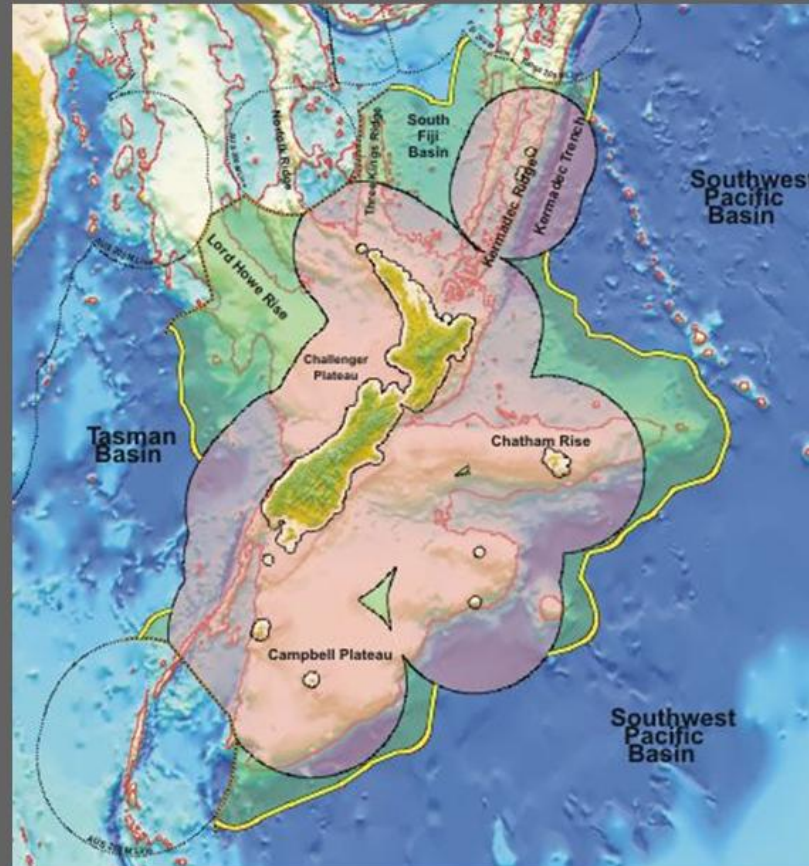
Hikurangi Plateau

Hikurangi Plateau

- is a large igneous province
- was accreted to New Zealand ~110-100 Ma



New Zealand's EEZ and Continental Shelf



Summary

The submission is an investment in the future

Delimitation of the continental shelf will

- confirm sovereign rights,
- bring clarity and certainty to investment; and
- make a significant contribution to economic and social prosperity