

UNDERSEA FEATURE NAME PROPOSAL

(Sea NOTE overleaf)

Note: The boxes will expand as you fill the form.

Name Proposed:	Silent II Seamount	Ocean or Sea:	South Pacific Ocean
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Geometry that best defines the feature (Yes/No):						
Point	Line	Polygon	Multiple points	Multiple lines*	Multiple polygons*	Combination of geometries*
		X				

* Geometry should be clearly distinguished when providing the coordinates below.

Coordinates:	Lat. (e.g. 63°32.6'N)	Long. (e.g. 046°21.3'W)
	35°10.12'S (centre)	178°54.13'E (centre)
	35°12.617' S	178°49.267' E
	35°10.35' S	178°47.567' E
	35°8.167' S	178°47.15' E
	35°6.70' S	178°48.883' E
	35°6.20' S	178°51.567' E
	35°7.033' S	178°54.733' E
	35°8.333' S	178°57' E
	35°9.717' S	178°57.717' E
	35°11.05' S	178°56.567' E
	35°12.383' S	178°54.05' E
35°13.333' S	178°51.1' E	
35°12.617' S	178°49.267' E	

Feature Description:	Maximum Depth:	2200 metres	Steepness :	
	Minimum Depth :	850 metres	Shape :	Volcanic cone
	Total Relief :	1350 metres	Dimension/Size :	16 x 12 km

Associated Features:	Located in the Kermadec volcanic arc 13 km north of Thompson Seamount and 18 km south of Cotton Seamount.
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Chart/Map References:	Shown Named on Map/Chart: Named in internationally peer reviewed journals	Kibblewhite AC, Denham RN, 1967. The bathymetry and total magnetic field of the south Kermadec Ridge seamounts. NZ Jour. Sci. 10, 52-67. IC Wright, TJ Worthington & JA Gamble (2006). New multibeam mapping and geochemistry of the 308–358 S sector, and overview, of southern Kermadec arc volcanism. <i>Journal of Volcanology and Geothermal Research</i> 149, 263 – 296.
	Shown Unnamed on Map/Chart:	
	Within Area of Map/Chart:	Chart NZ 14600 INT 600, INT 605

Reason for Choice of Name (if a person, state how associated with the feature to be named):	<p>Named by Dr Alick Kibblewhite while surveying the 'Rumble' volcanoes in the mid-1960s with HMNZS Tui. Rumble volcanoes were named for the 'rumble' sound recorded on the RNZ Navy hydrophone network near Auckland when erupting. The 'Silent' volcanoes were not recorded on the network, but discovered during hydrographic surveys – hence their name. NOTE: all volcanoes in the vicinity were named either 'Rumble' or 'Silent' during the early surveys (Kibblewhite 1966, Kibblewhite and Denham 1967, Kibblewhite 1967, Wright et al. 1996). Subsequent surveys identified Rumble I Seamount and Silent I Seamount to be part of Kermadec Ridge rather than stratovolcanoes.</p> <p>Kibblewhite AC, 1966. The acoustic detection and location of an underwater volcano. NZ Jour. Sci. 9, 178-199.</p> <p>Kibblewhite AC, Denham RN, 1967. The bathymetry and total magnetic field of the south Kermadec Ridge seamounts. NZ Jour. Sci. 10, 52-67.</p> <p>Kibblewhite AC, 1967. Note on another active seamount in the south Kermadec Ridge group. NZ Jour. Sci. 10, 68-69.</p> <p>Wright IC, Parson LM, Gamble JA, 1996. Evolution and interaction of migrating cross-arc volcanism and backarc rifting: An example from the southern Havre Trough. Jour. Geoph. Res. 101, 22071-22086</p>
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Discovery Facts:	Discovery Date:	c. 1965
	Discoverer (Individual, Ship):	HMNZS Tui

Supporting Survey Data, including Track Controls:	Date of Survey:	1965 - 2011
	Survey Ship:	Single beam - HMNZS Tui (1965), multibeam - RV Yokosuka (2004), RV Thomas Thompson (2009), RV Tangaroa (2002, 2011)
	Sounding Equipment:	EM2112, EM300 EM302 multibeam
	Type of Navigation:	DGPS
	Estimated Horizontal Accuracy (nm):	25 m
	Survey Track Spacing:	Multiple surveys, variable spacing
	Supporting material can be submitted as Annex in analog or digital form.	

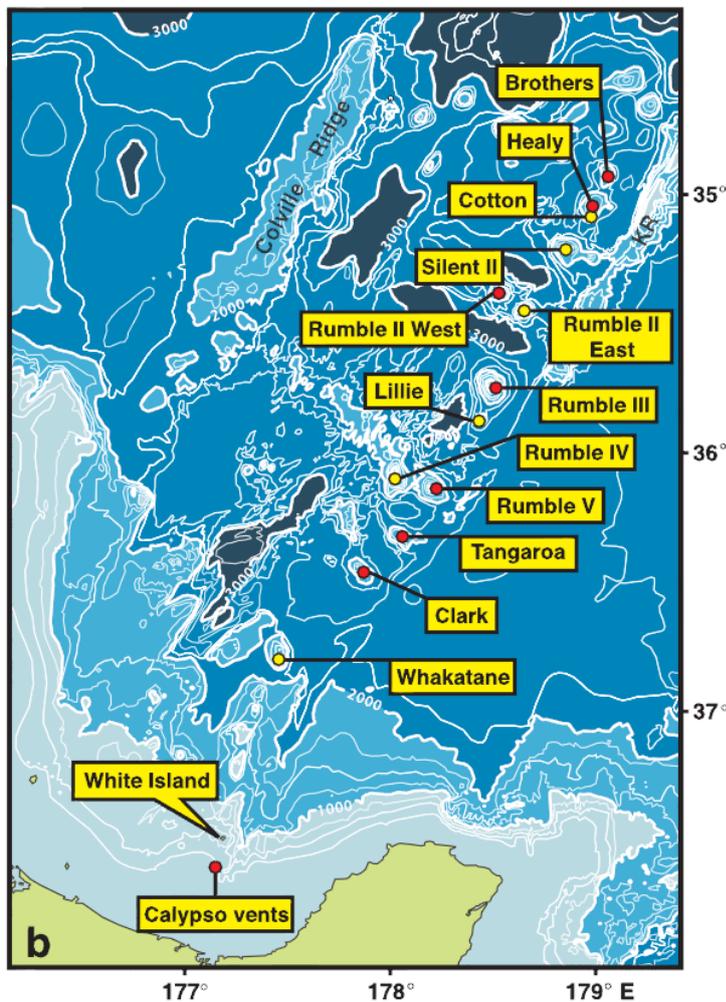
Proposer(s):	Name(s):	Mr Mark Dyer (Chairperson of the NZGB) & Mr Adam Greenland (National Hydrographer)
	Date:	27 June 2016
	E-mail:	markdyer@linz.govt.nz
	Organization and Address:	New Zealand Geographic Board PO Box 5501 Wellington 6145 New Zealand
	Concurrer (name, e-mail, organization and address):	Dr Vaughan Stagpoole V.Stagpoole@gns.cri.nz GNS Science PO Box 30 368 Lower Hutt 5040 New Zealand

Remarks:	Informally named Giggenbach Volcano. The New Zealand Geographic Board gazetted Giggenbach Seamount as an official undersea feature name on 26 May 2016.
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NOTE : This form should be forwarded, when completed :

- a) **If the undersea feature is located inside the external limit of the territorial sea:-**
to your "National Authority for Approval of Undersea Feature Names" (see page 2-9) or, if this does not exist or is not known, either to the IHB or to the IOC (see addresses below);
- b) **If at least 50 % of the undersea feature is located outside the external limits of the territorial sea:-**
to the IHB or to the IOC, at the following addresses :

International Hydrographic Bureau (IHB) 4, Quai Antoine 1er B.P. 445 MC 98011 MONACO CEDEX Principality of MONACO Fax: +377 93 10 81 40 E-mail: info@ihb.mc	Intergovernmental Oceanographic Commission (IOC) UNESCO Place de Fontenoy 75700 PARIS France Fax: +33 1 45 68 58 12 E-mail: info@unesco.org
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Commonly used names of volcanoes on the southern Kermadec volcanic arc, north of the Bay of Plenty, New Zealand (from CEJ de Ronde, ET Baker, GJ Massoth, JE Lupton, IC Wright, RA Feely, RR. Greene, 2001. Intra-oceanic subduction-related hydrothermal venting, Kermadec volcanic arc, New Zealand. Earth and Planetary Science Letters 193, 359-369). Hydrothermally active sites, vent hot water, are shown with red circles.

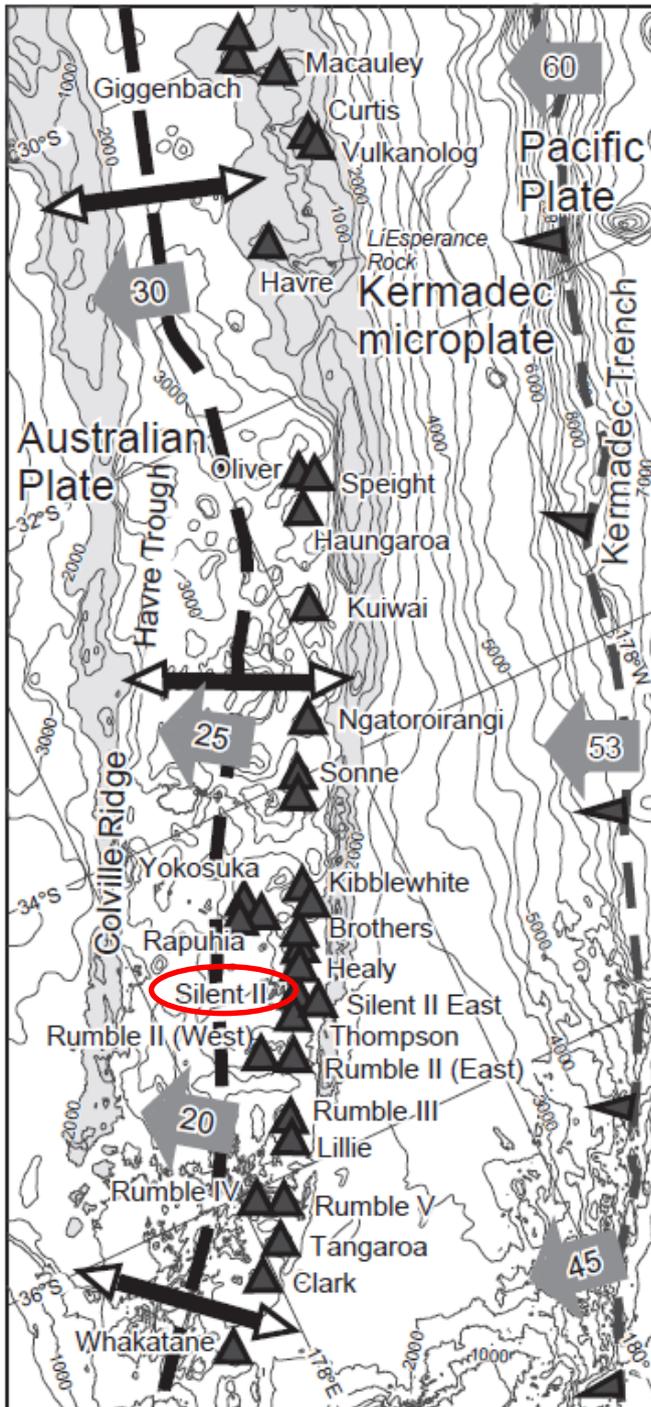
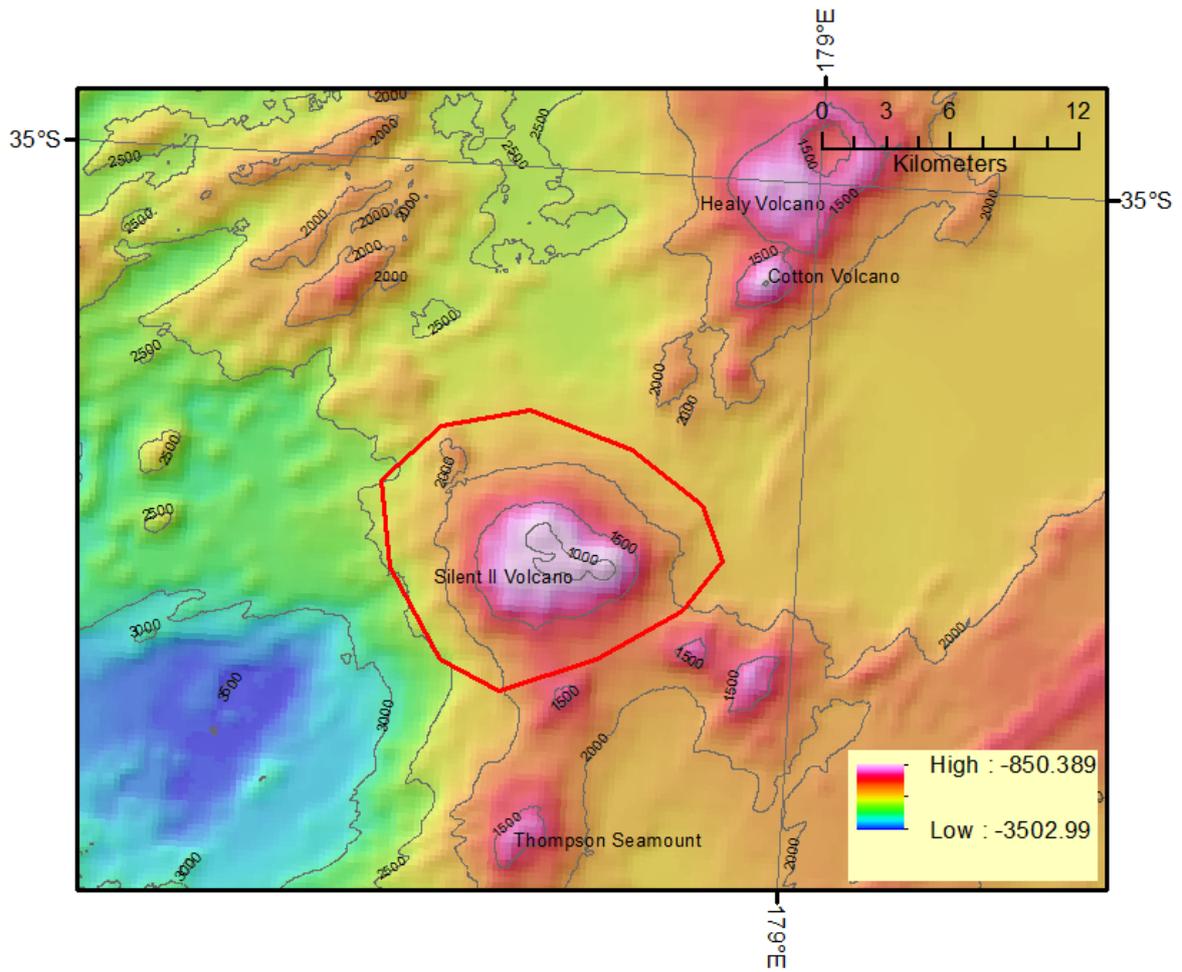
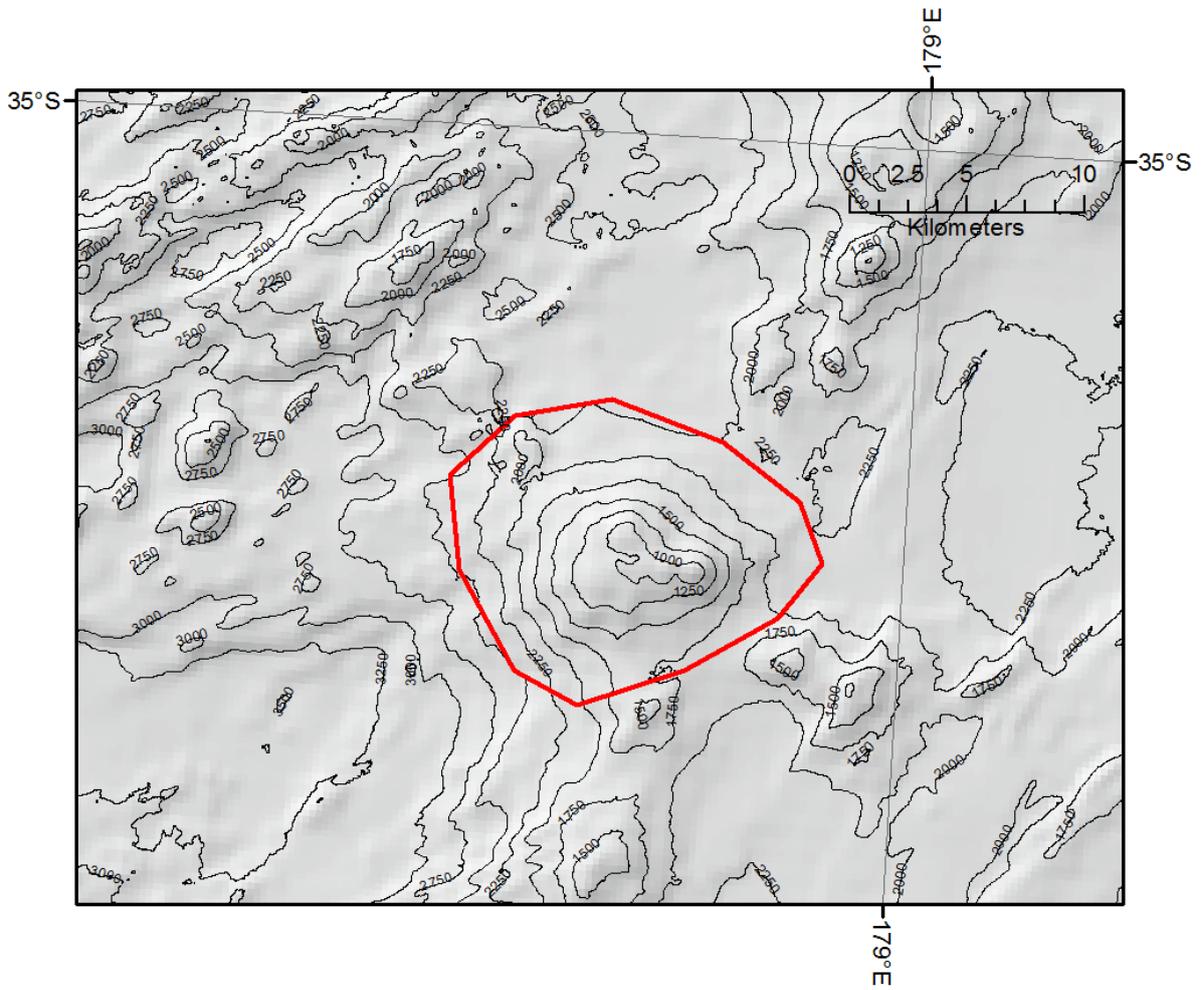


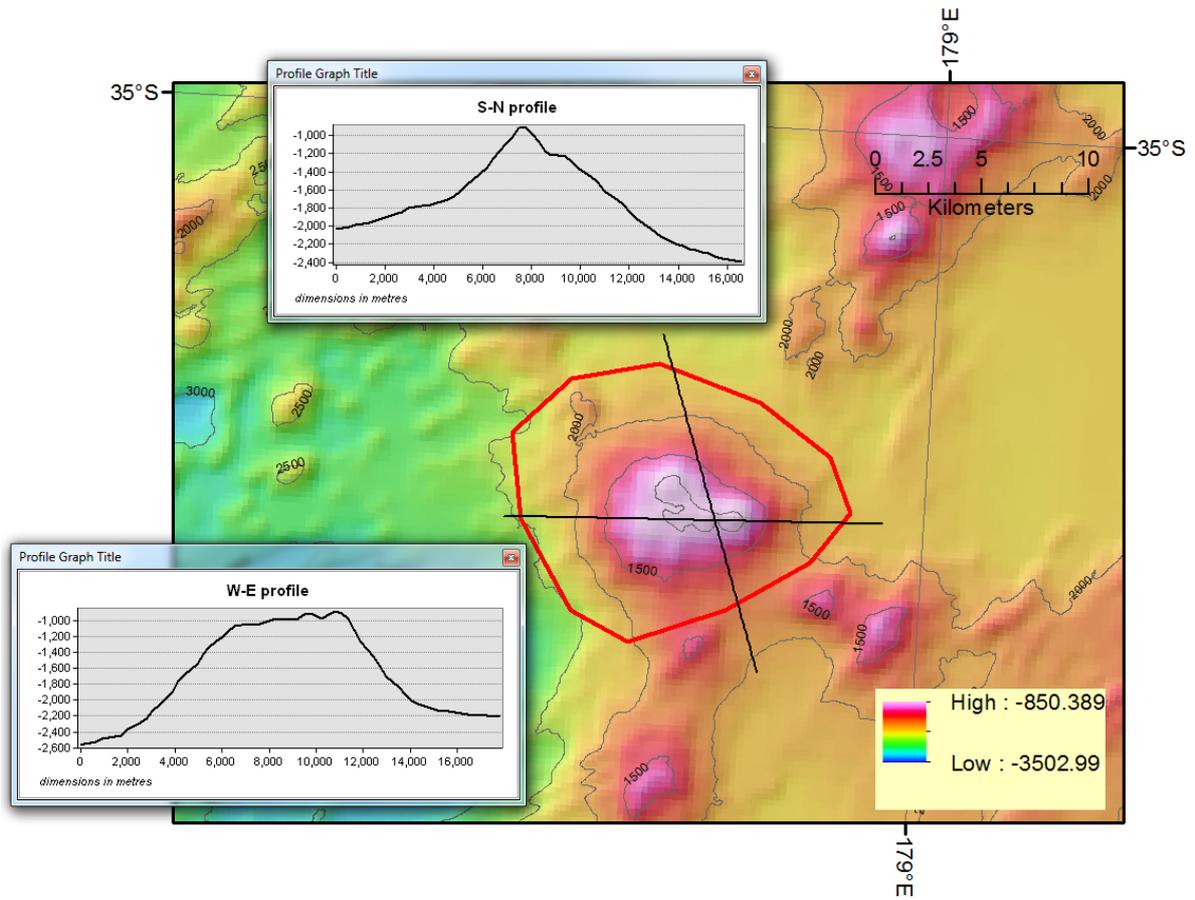
Fig. 2A of Wright et al 2006. Regional setting of the southern and central Kermadec subduction system, including newly discovered volcanoes (closed triangles) of the arc front [including Silent II]. Dashed lines show location of the subduction and extensional plate boundaries, east and west of the Kermadec microplate, respectively, with grey arrows showing estimated relative Pa–Ke and Ke–Au plate motion in millimeters per annum.



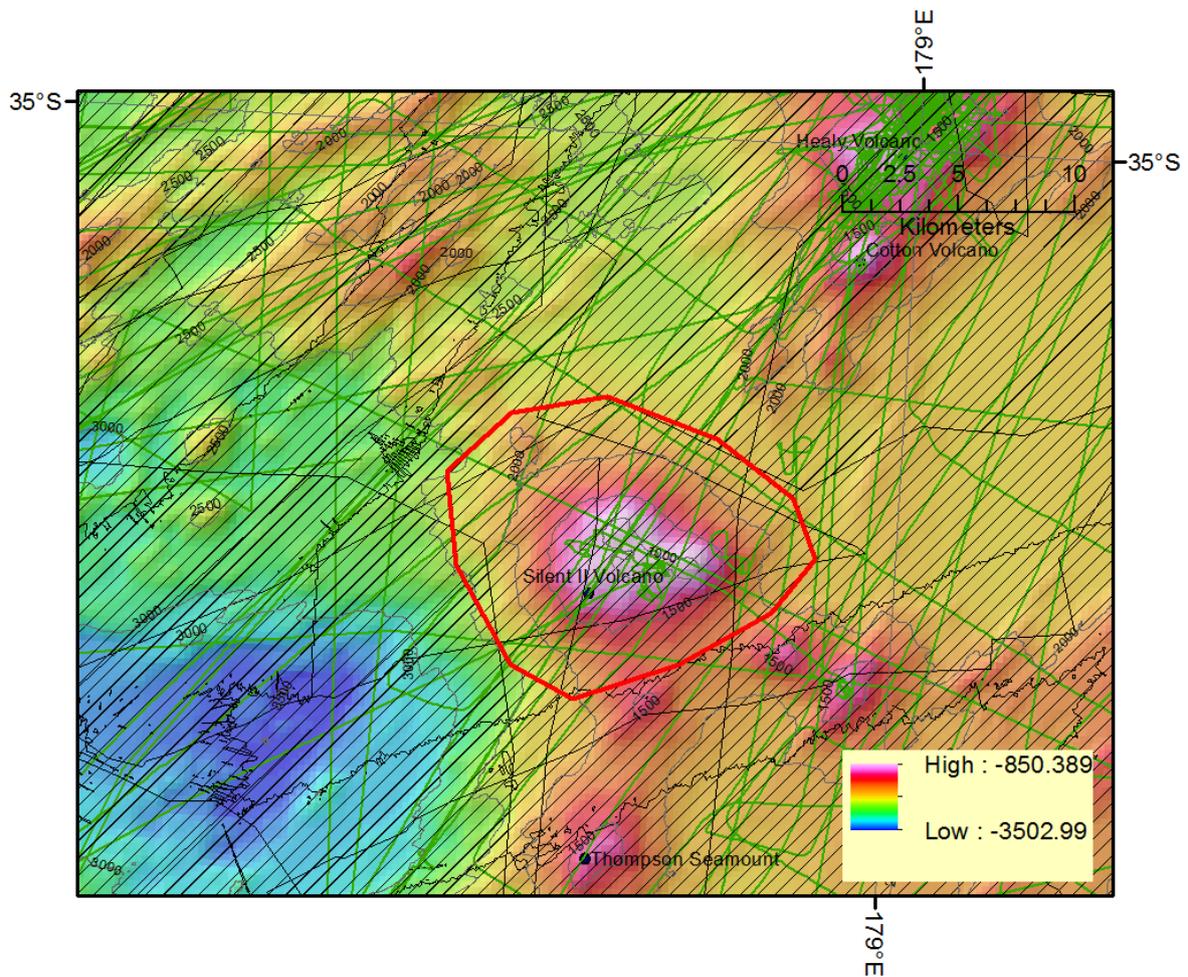
Bathymetry (250m grid) of Silent II Seamount and polygon around the feature



Bathymetry contours on hillshade background



Profiles of Silent II Seamount (dimensions in metres)



Data coverage

Cross-hatch = multibeam bathymetry coverage

Dark green = single beam bathymetry data

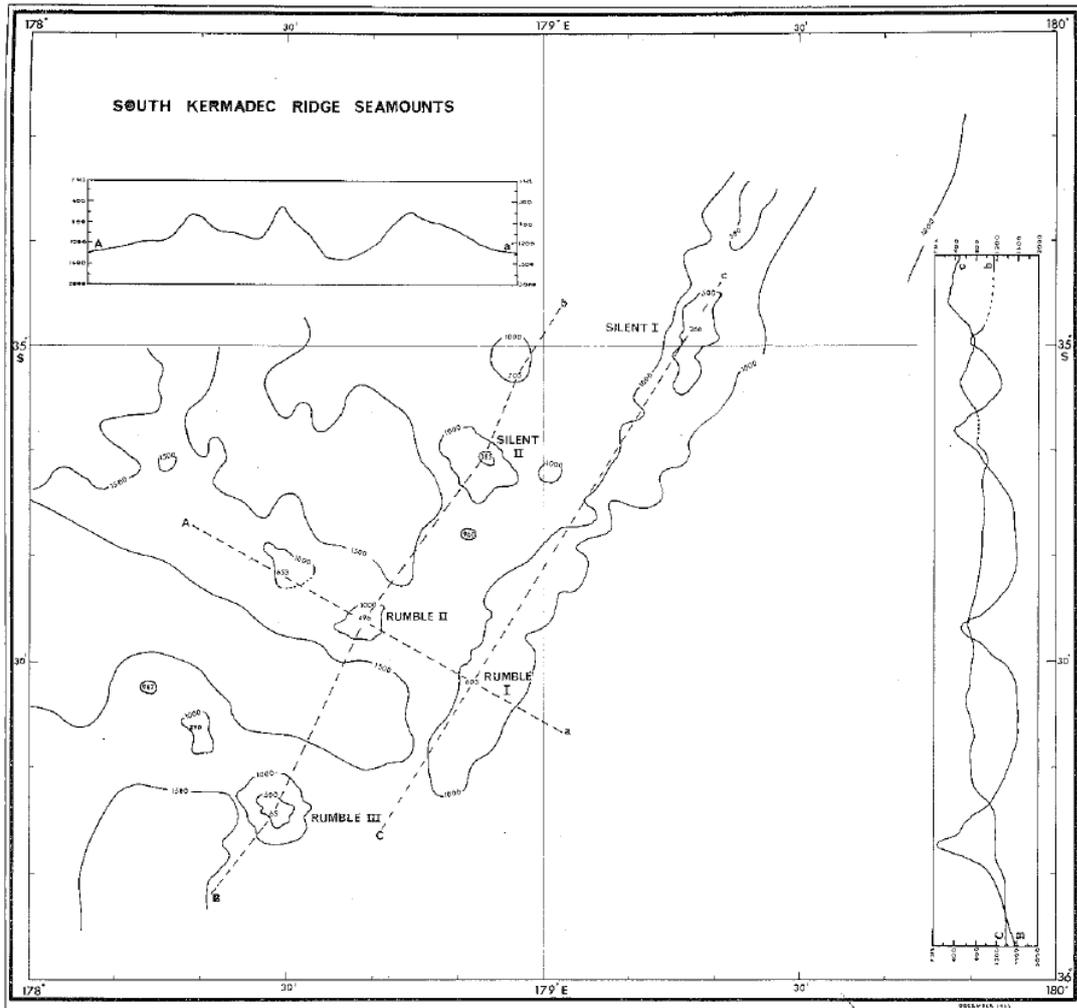


FIG. 4—Bathymetric contours around the South Kermadec Ridge Seamounts

Map from Kibblewhite and Denham (1967) showing the location of Silent II Seamount.

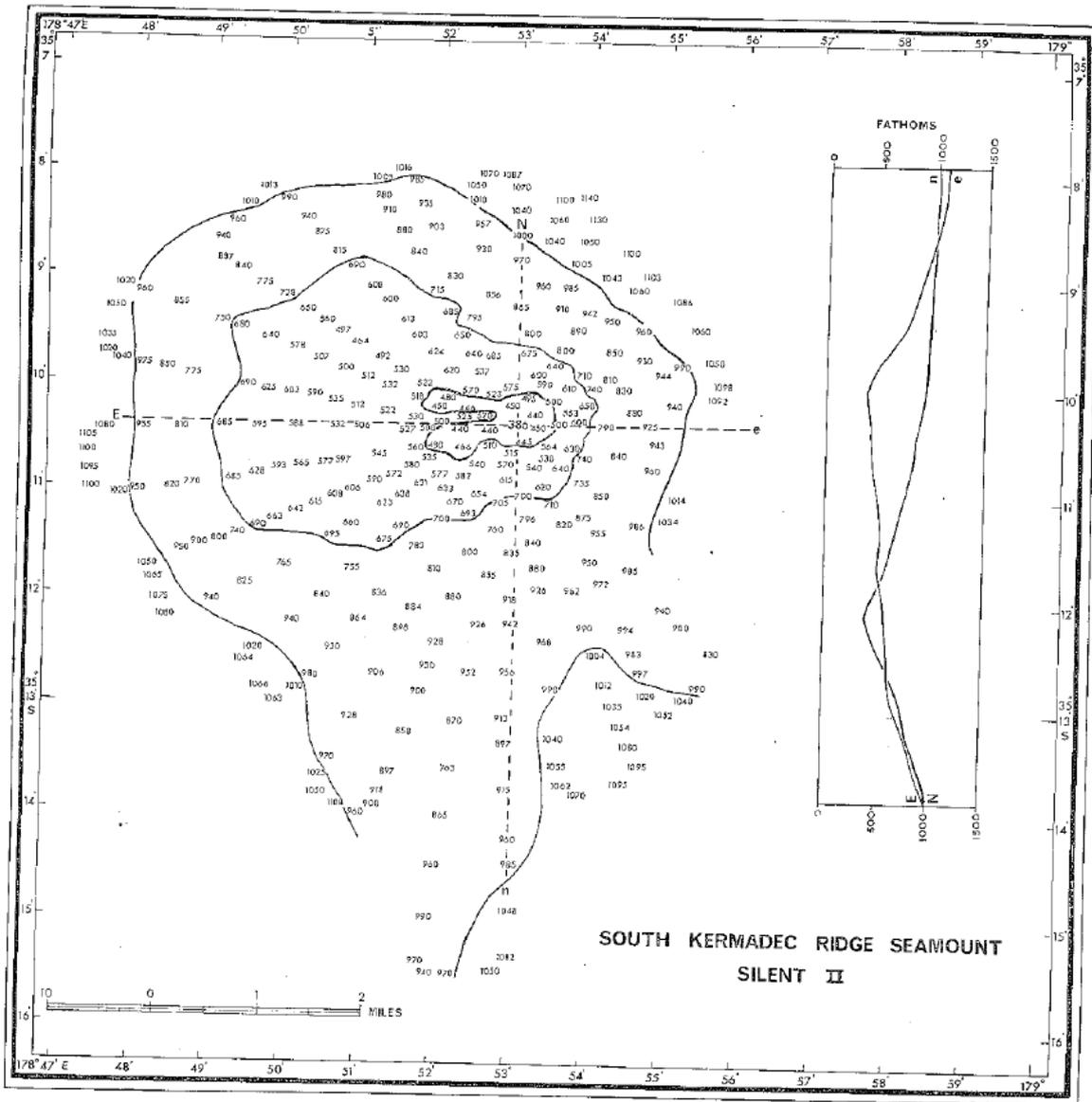


FIG. 6—Bathymetry of Silent II

Map from Kibblewhite and Denham (1967) showing the bathymetry of Silent II Seamount from surveys by HMNZS Tui.