

UNDERSEA FEATURE NAME PROPOSAL
(Sea NOTE overleaf)

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

Name Proposed:	Healy 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.

	Lat. (e.g. 63°32.6'N)	Long. (e.g. 046°21.3'W)
	35°00.22'S (centre)	178°58.35'E (centre)
	35°1.683`S	178°58.95`E
	35°1.883`S	178°56.267`E
	35°0.833`S	178°55.033`E
	34°59.467`S	178°54.717`E
	34°57.95`S	178°54.117`E
	34°56.95`S	178°53.85`E
	34°56.033`S	178°55.267`E
	34°55.583`S	178°57.567`E
	34°55.383`S	178°59.883`E
Coordinates:	34°56.067`S	179°1.383`E
	34°56.40`S	179°2.867`E
	34°57.067`S	179°3.967`E
	34°58.35`S	179°4.583`E
	34°58.967`S	179°4.883`E
	35°0.70`S	179°3.817`E
	35°1.633`S	179°2.233`E
	35°2.183`S	179°0.75`E
	35°1.983`S	178°59.717`E
	35°1.983`S	178°59.717`E
	35°1.683`S	178°58.95`E

Feature Description:	Maximum Depth:	2200 metres	Steepness :	
	Minimum Depth :	1100 metres	Shape :	Volcano with associated caldera
	Total Relief :	1100 metres	Dimension/Size :	16 x 14 km

Associated Features:	Healy Seamount lies 15 km SW of Brothers Seamount and 5 km north of Cotton Seamount in the Kermadec volcanic arc.
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Chart/Map References:	Shown Named on Map/Chart: Named in an internationally peer reviewed journal	IC Wright & JA Gamble (1999). Southern Kermadec submarine caldera arc volcanoes (SW Pacific): caldera formation by effusive and pyroclastic eruption. <i>Marine Geology</i> 161, 207–227 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):	Named after Dr James Healy, OBE (1910-1994) for his early research in New Zealand volcanology and geothermal exploration in the Wairakei region. NZ Government Volcanologist 1947-1971. See: http://www.teara.govt.nz/en/biographies/5h14/healy-james
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Discovery Facts:	Discovery Date:	April-June 1965
	Discoverer (Individual, Ship):	RNZNS Tui

Supporting Survey Data, including Track Controls:	Date of Survey:	1994-2011
	Survey Ship:	RV Giljanes (1994), RV Sonne (2007), RV Thomas Thompson (2009), RV Tangaroa (2002, 2011), RV Yokosuka (2004)
	Sounding Equipment:	EM12 and MR2, EM120, SeaBeam 2000, SeaBeam 2112, EM300, EM302 multibeam
	Type of Navigation:	DGPS
	Estimated Horizontal Accuracy (nm):	25 m
	Survey Track Spacing:	Variable
	Supporting material can be submitted as Annex in analog or digital form.	

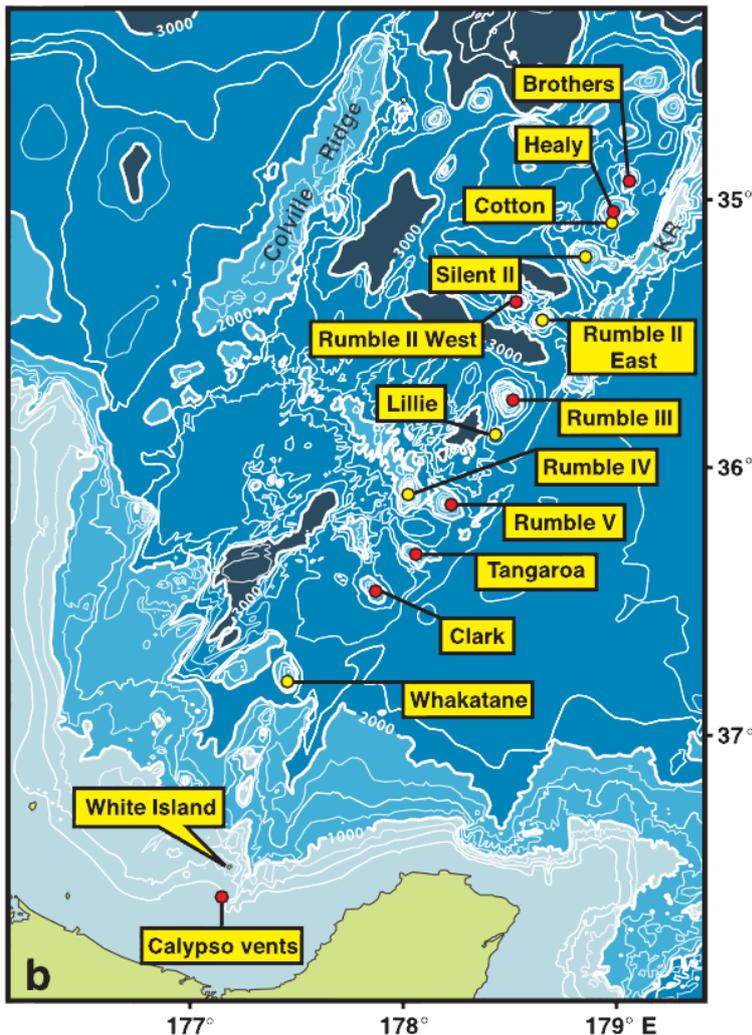
Proposer(s):	Name(s):	Mr Mark Dyer (Chairperson of the NZGB) & Mr Adam Greenland (National Hydrographer)
	Date:	27 June 2016
	E-mail:	markdyer@linz.govt.nz
	Organization and Address:	New Zealand Geographic Board PO Box 5501 Wellington 6145 New Zealand
	Concurrer (name, e-mail, organization and address):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

Remarks:	Informally named Healy Volcano. The New Zealand Geographic Board gazetted Healy 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.

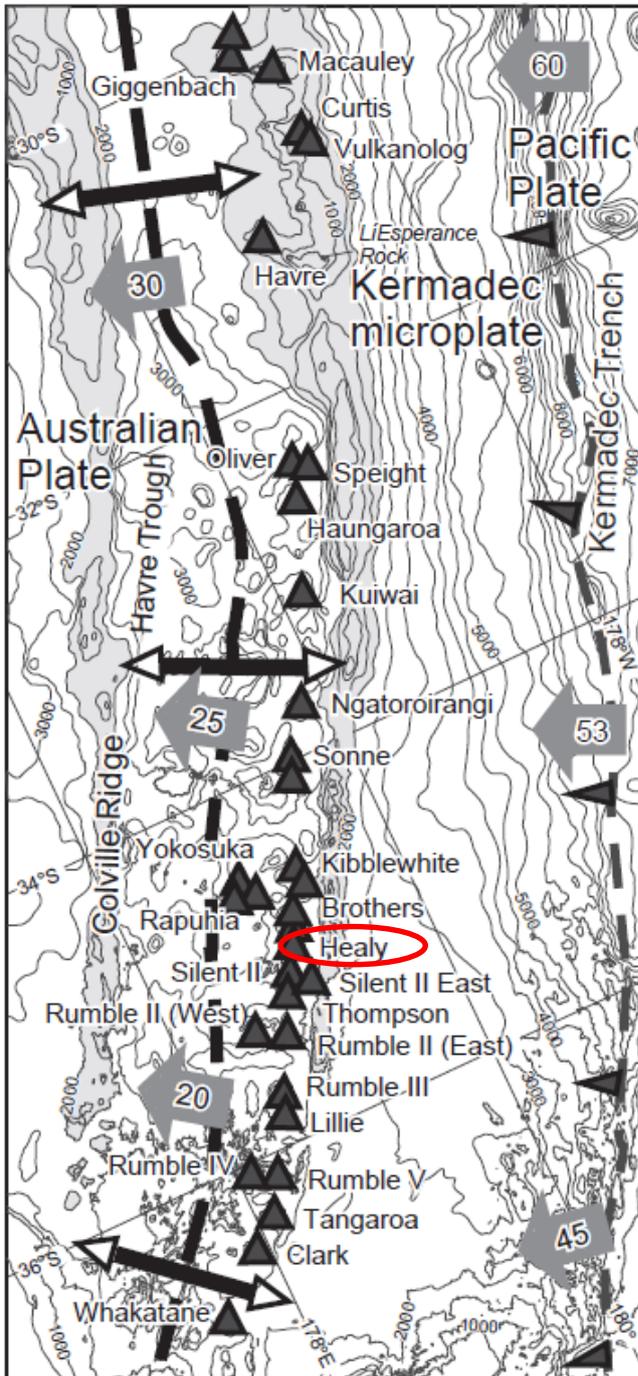
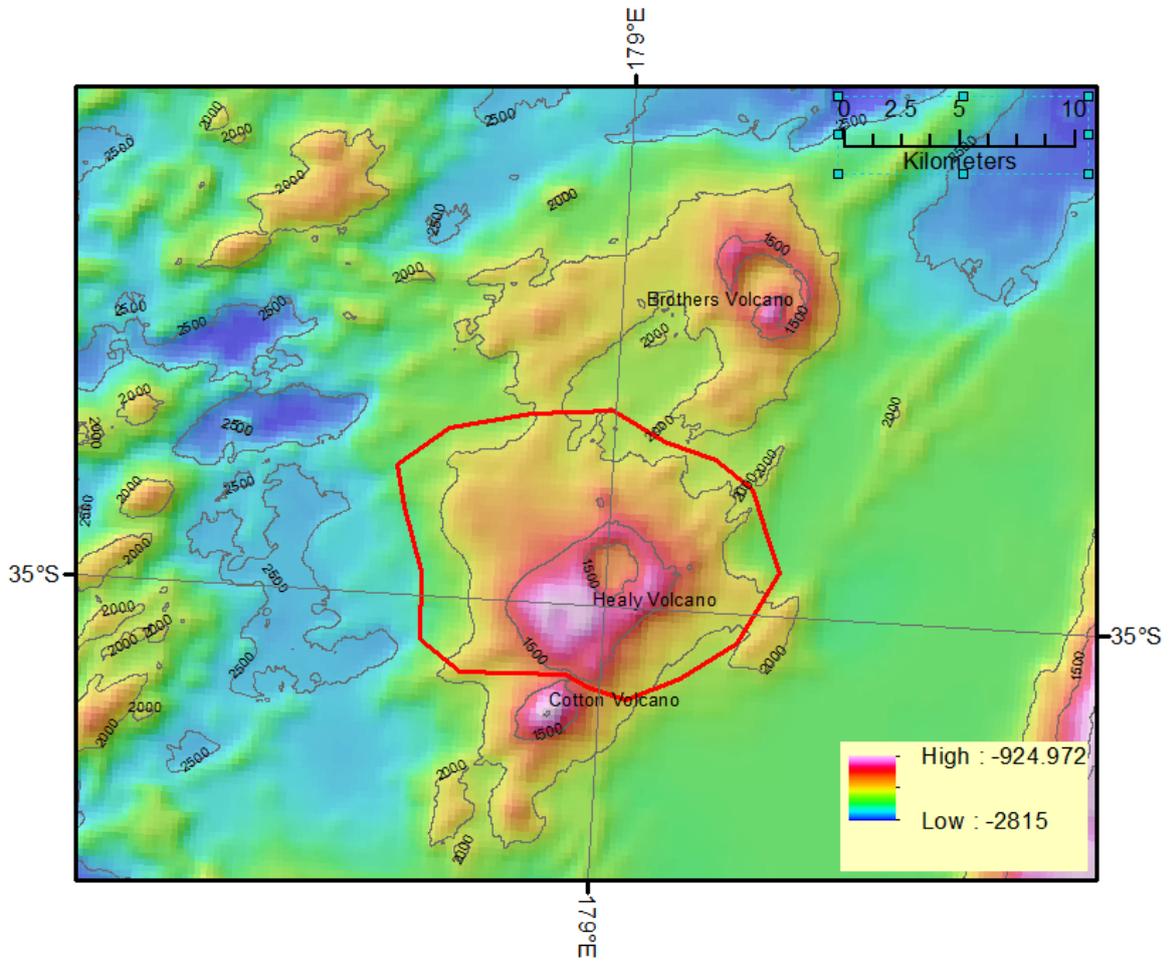
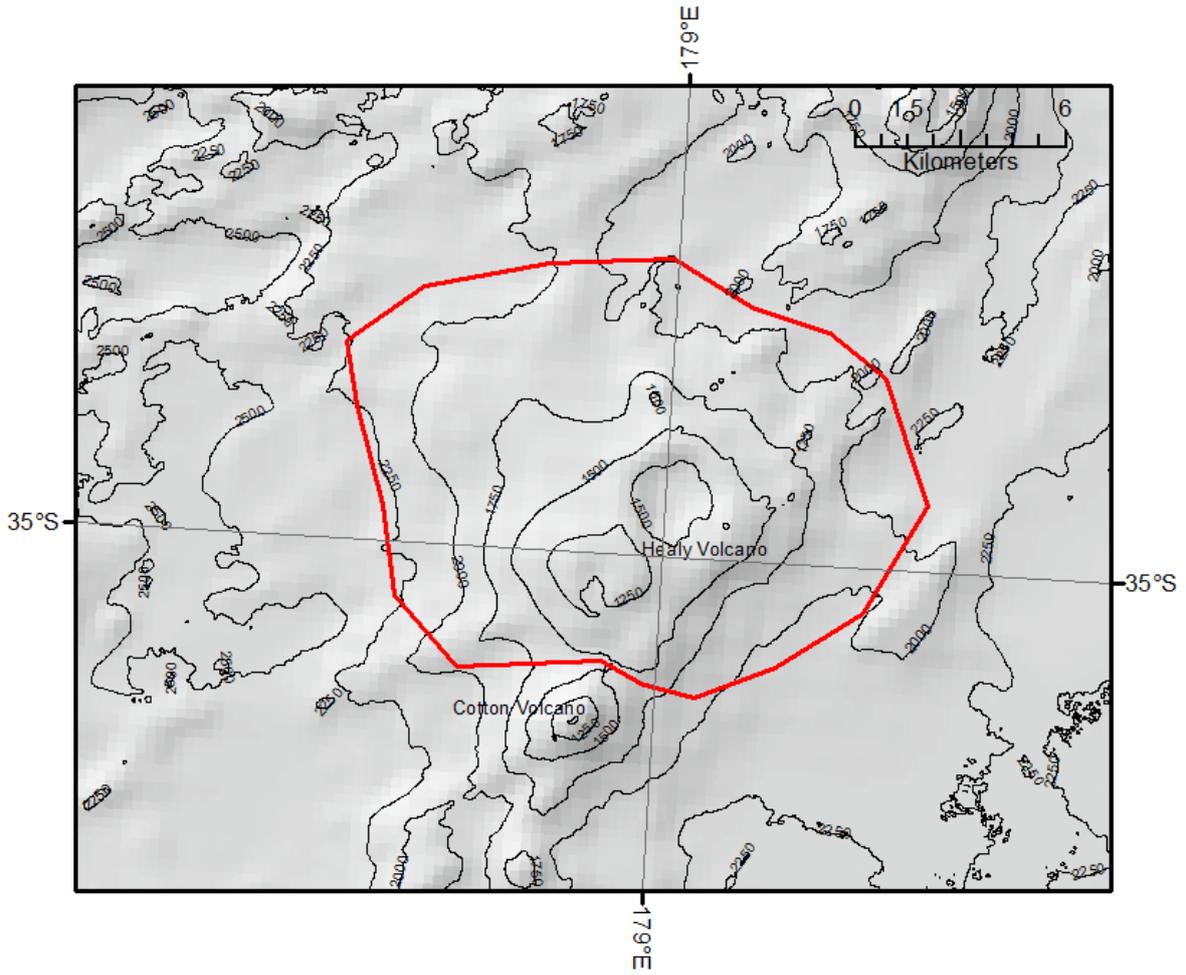


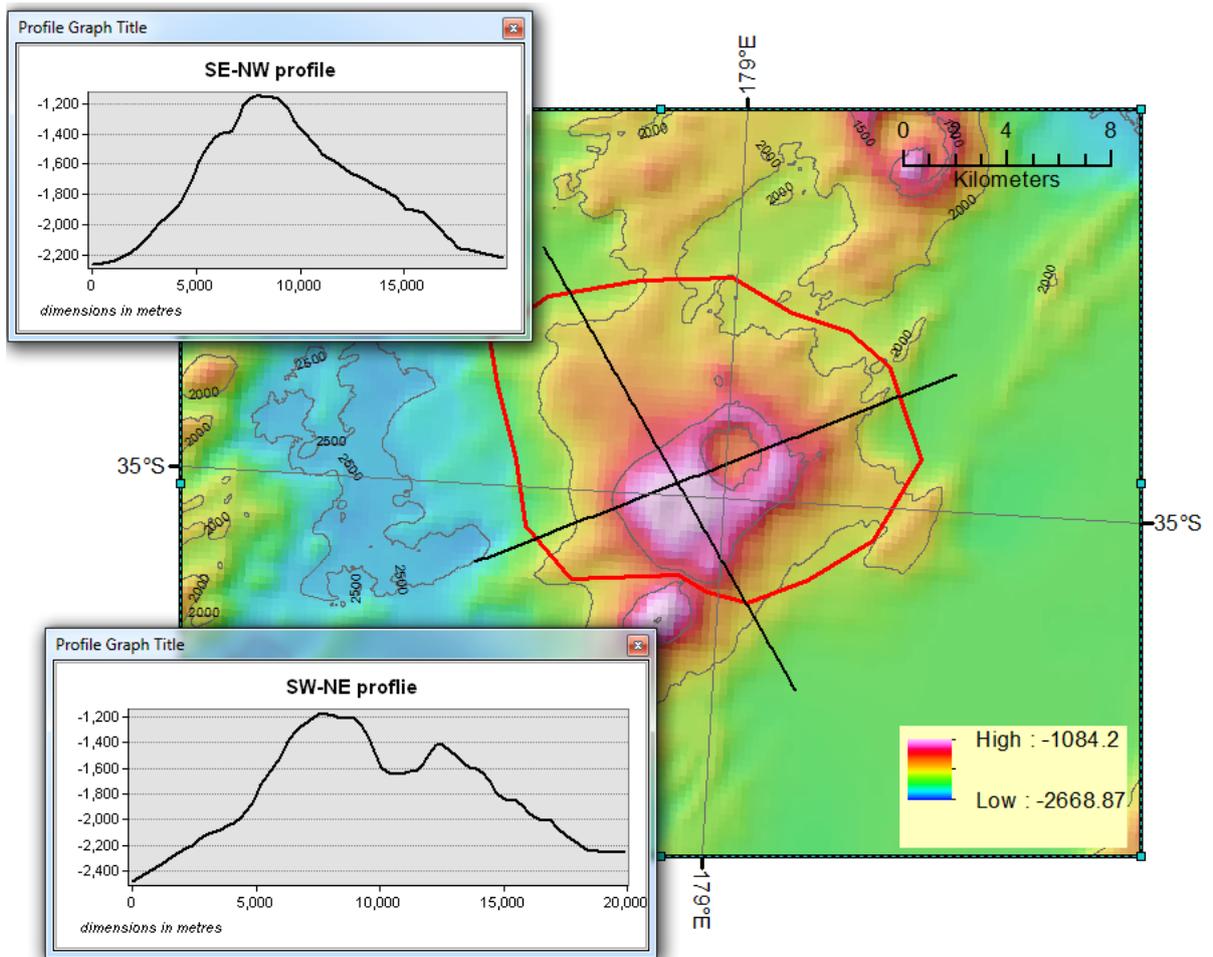
Fig. 2A of Wright et al 2006. Regional setting of the southern and central Kermadec subduction system, including newly discovered volcanoes (closed triangles) of the arc front [including Healy]. Dashed lines show location of the subduction and extensional plate boundaries, east and west of the Kermadec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



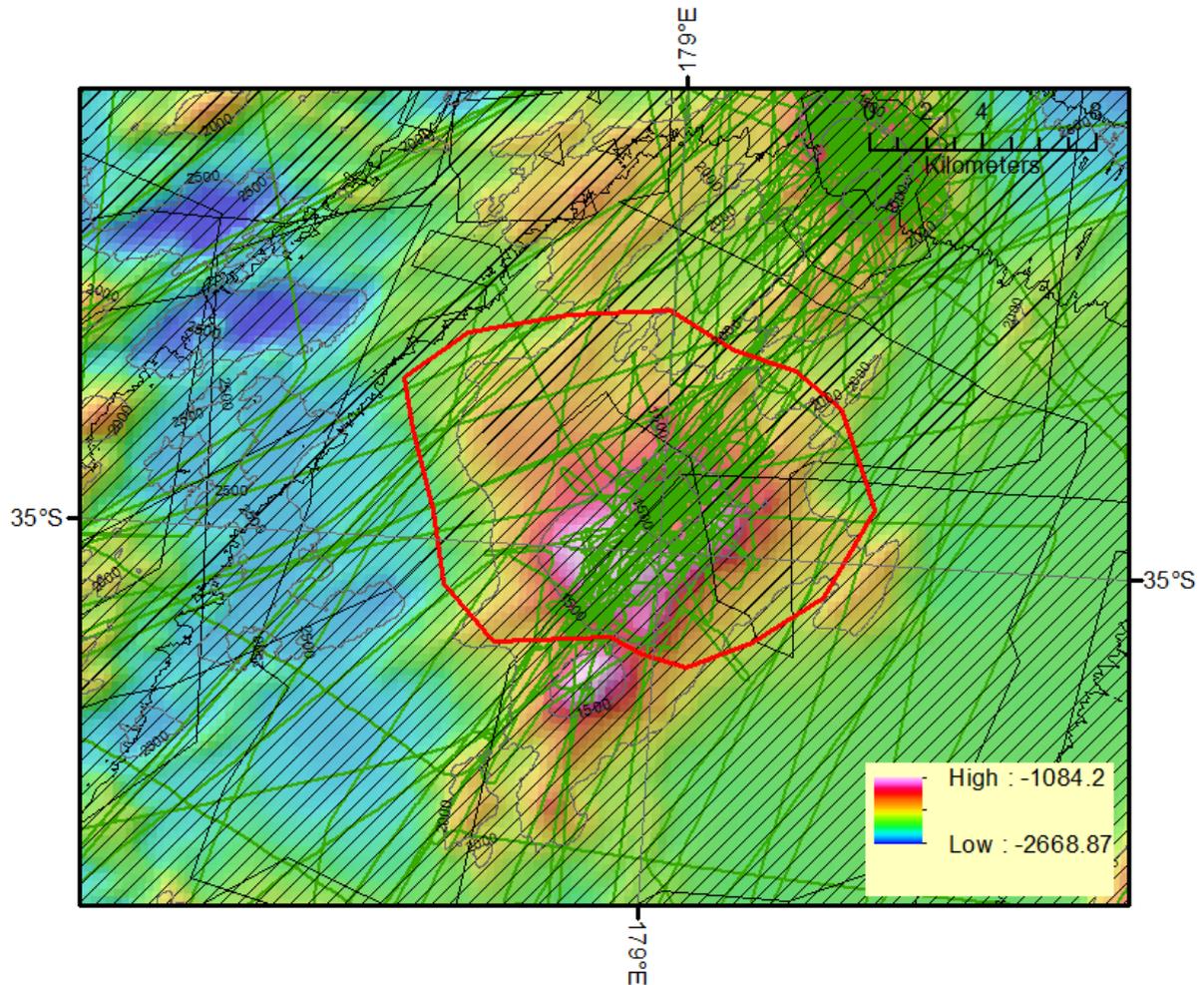
Bathymetry (250m grid) of Healy Seamount and polygon around the feature



Bathymetry contours on hillshade background



Profiles of Healy Seamount (dimensions in metres), summit elevation = 1100 metres.



Data coverage :
 Cross-hatch = multibeam bathymetry coverage
 Dark green = single beam bathymetry data

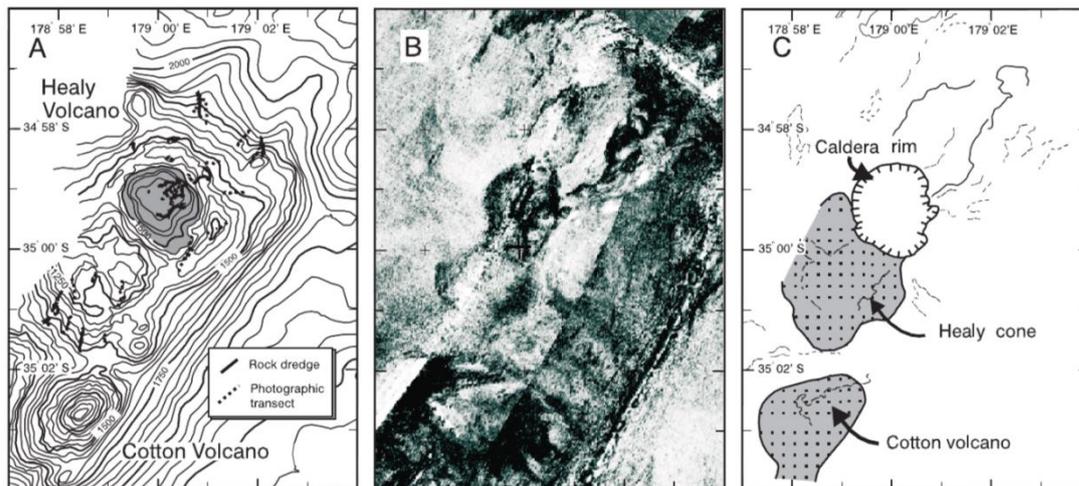


Fig. 4. Healy and Cotton volcanoes: (A) Bathymetry, and seafloor dredge and photographic transects, (B) MR1 imagery with dark areas as regions of high acoustic backscatter, and (C) Geological interpretation of swath and photographic data.

Source: IC Wright & JA Gamble (1999). Southern Kermadec submarine caldera arc volcanoes (SW Pacific): caldera formation by effusive and pyroclastic eruption. *Marine Geology* 161, 207–227