INTERNATIONAL HYDROGRAPHIC ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

UNDERSEA FEATURE NAME PROPOSAL

(Sea **NOTE** overleaf)

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

Name Proposed:	**Monowai Seamount**	**Ocean or Sea:**	South Pacific Ocean

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)
Coordinates:	25°53.20'S (centre)	177°11.30'W (centre)
	25°43.083`S	177°14.483`W
	25°43.167`S	177°10.717`W
	25°44.133`S	177°7.367`W
	25°46.217`S	177°4.567`W
	25°49.717`S	177°4.167`W
	25°52.283`S	177°4.867`W
	25°52.8`S	177°6.9`W
	25°55.05`S	177°7.433`W
	25°57.183`S	177°11.267`W
	25°56.083`S	177°15.417`W
	25°52.967`S	177°16.467`W
	25°50.8`S	177°15.917`W
	25°48.25`S	177°16.85`W
	25°45.633`S	177°17.35`W
	25°43.95`S	177°16.317`W
	25°43.083`S	177°14.483`W

Feature Description:	Maximum Depth:	1630 metres (bottom of crater)	Steepness :	
	Minimum Depth :	96 metres	Shape :	Volcanic edifice and associated caldera
	Total Relief :	1534 metres	Dimension/Size :	24 x 25 km

Associated Features:	Monowai Seamount lies 50 km north of Hinepuia Seamopunt in the Kermadec volcanic arc.

Chart/Map References:	~~Shown Named on Map/Chart:~~ Named in an internationally peer reviewed journal	Davey FJ. 1980. The Monowai Seamount : an active submarine colcanic centre on the Tonga Kermadec ridge (Note). NZ Jour. Geol. Geoph. 23, 533-536. IJ Graham, AG Reyes, IC Wright, KM Peckett, IEM Smith & RJ Arculus (2008). Structure and petrology of newly discovered volcanic centers in the northern Kermadec–southern Tofua arc, South Pacific Ocean. *Journal of Geophysical Research*, Vol. 113, 1-24.
	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 the Royal New Zealand Navy research vessel *HMNZS Monowai*. 'Monowai' is a compound of the Greek 'mono' *lit*. 'one', and the Māori 'wai', *lit*. 'water'.

Discovery Facts:	Discovery Date:	First reported by a freighter (unknown) in 1944. Volcanic plume sighted in October 1977, first survey in September 1978
	Discoverer (Individual, Ship):	RNZN Monowai after volcanic plume was identified from aircraft

Supporting Survey Data, including Track Controls:	Date of Survey:	1986 - 2011
	Survey Ship:	RV Thomas Washington (1996), RV Sonne (1998, 2007, 2011), RV Tangaroa (2004)
	Sounding Equipment:	SeaBeam Classic, Atlas Hydrosweep DS2, EM 120, EM300 multibeam
	Type of Navigation:	DGPS
	Estimated Horizontal Accuracy (nm):	25 m
	Survey Track Spacing:	Variable, including single beam data from other surveys
	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

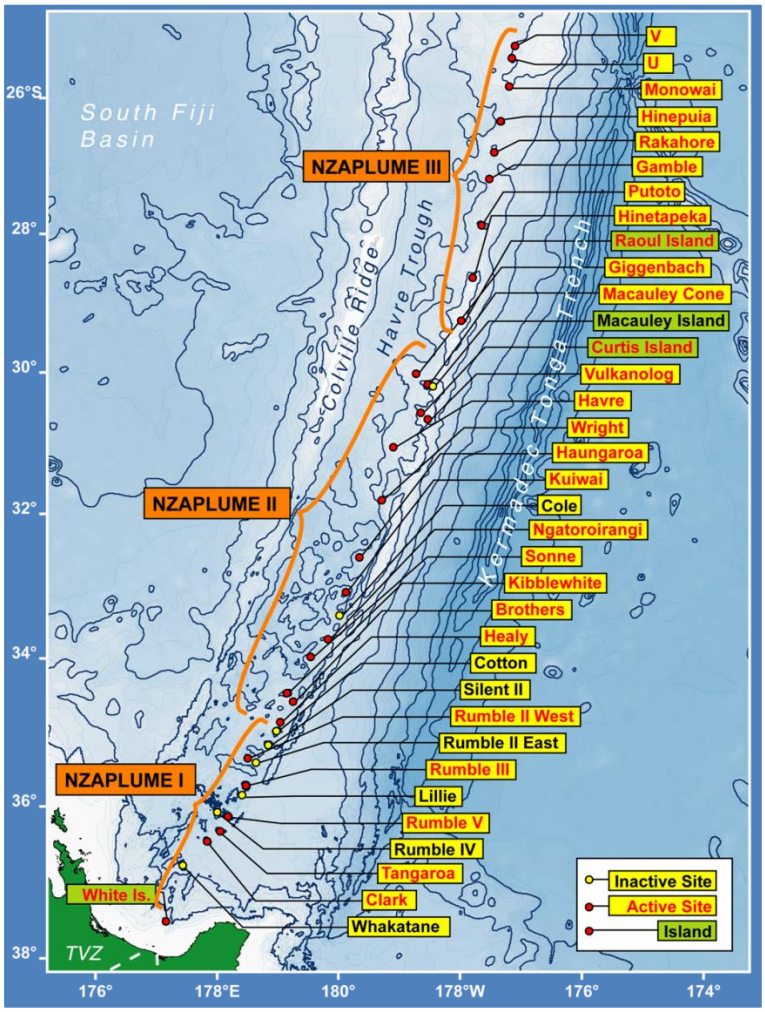
Remarks:	Informally named Monowai Volcano. The New Zealand Geographic Board gazetted **Monowai Seamount** as an official undersea feature name on 26 May 2016.

NOTE : This form should be forwarded, when completed :

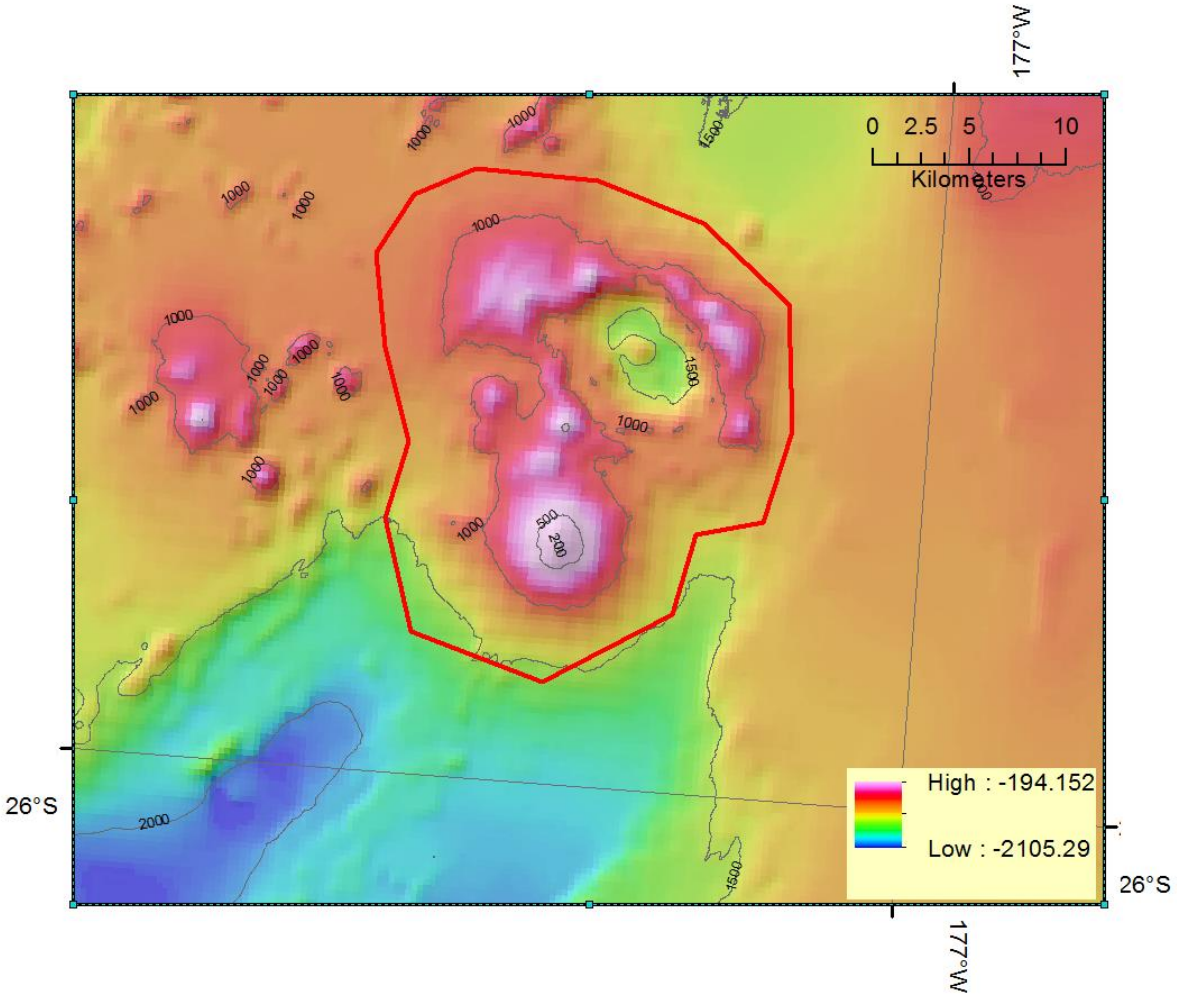
a) **If the undersea feature is located inside the external limit of the territorial sea**:-
to your "National Authority for Approval of Undersea Feature Names" (see page 2-9) or, if this does not exist or is not known, either to the IHB or to the IOC (see addresses below);

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 :

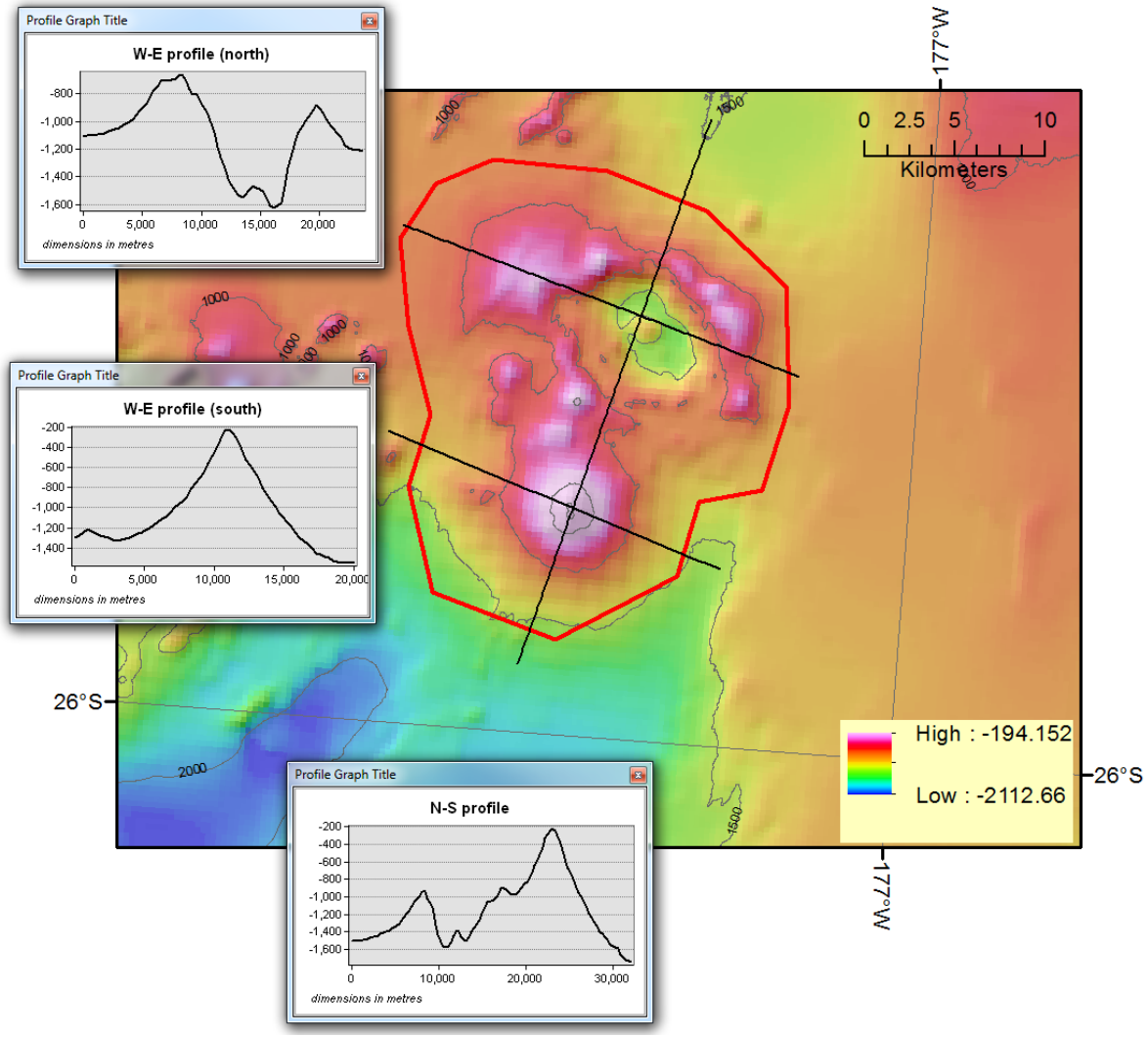
International Hydrographic Bureau (IHB) 4, Quai Antoine 1er B.P. 445 MC 98011 MONACO CEDEX Principality of MONACO Fax: +377 93 10 81 40 E-mail: info@ihb.mc	Intergovernmental Oceanographic Commission (IOC) UNESCO Place de Fontenoy 75700 PARIS France Fax: +33 1 45 68 58 12 E-mail: info@unesco.org



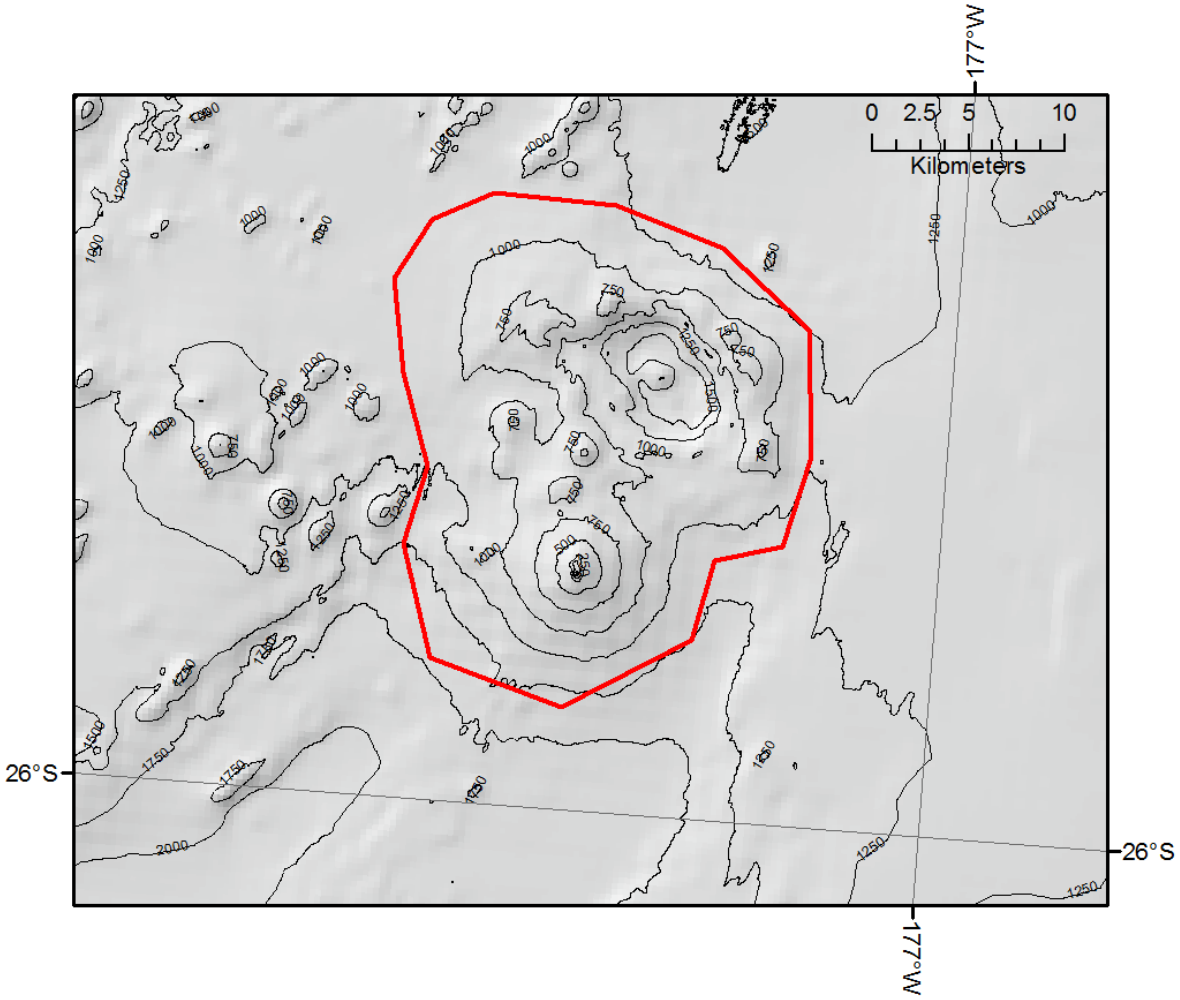
Commonly used names of volcanoes of the Kernmadec arc (de Ronde, pers. com. 2015). NZAPLUME I (1999) NZAPLUME II (2002) and NZAPLUME III (2004) refer to New Zealand-led surveys that mapped the regions and named many of the features (U and V are in Tongan waters). Active sites are those that are hydrothermally active and known to vent hot water.



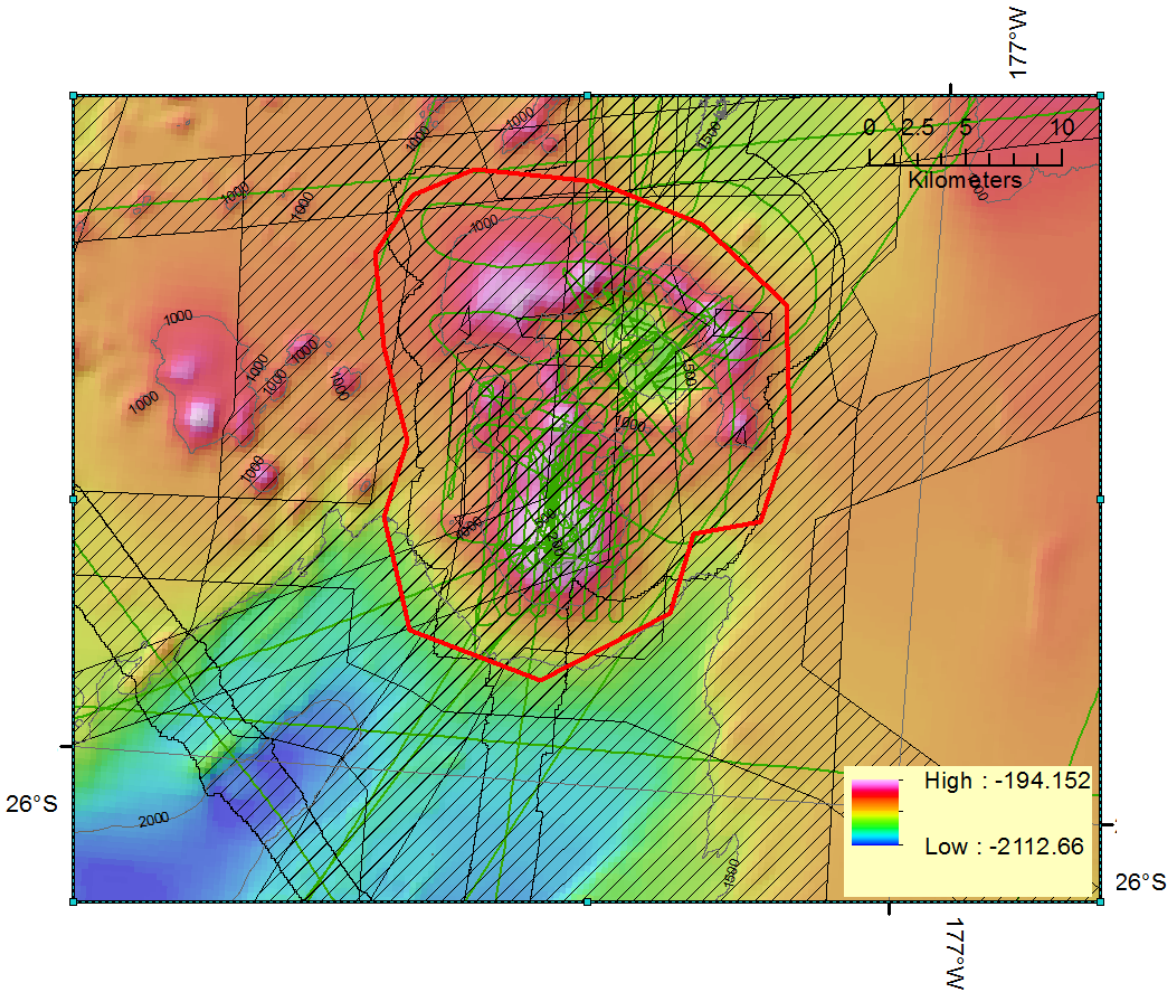
Bathymetry (250m grid) of Monowai Seamount and polygon around the feature.



Profiles of Monowai Seamount (dimensions in metres). Summit elevation = 96 metres.



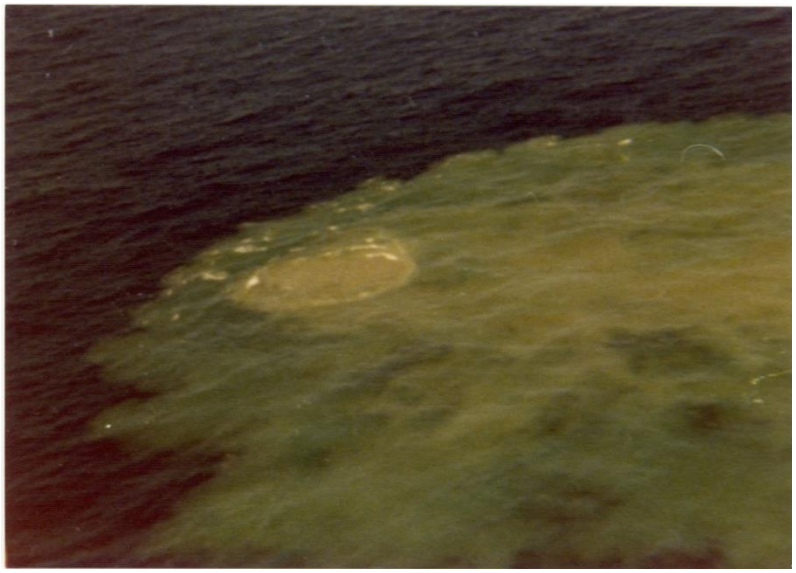
Bathymetry contours on hillshade background



Data coverage :

Cross-hatch = multibeam bathymetry coverage

Dark green = single beam bathymetry data



Eruption of Monowai volcano - volcanic plumes seen from the air in 1977 (top), 2009 (centre) and 2011 (bottom).

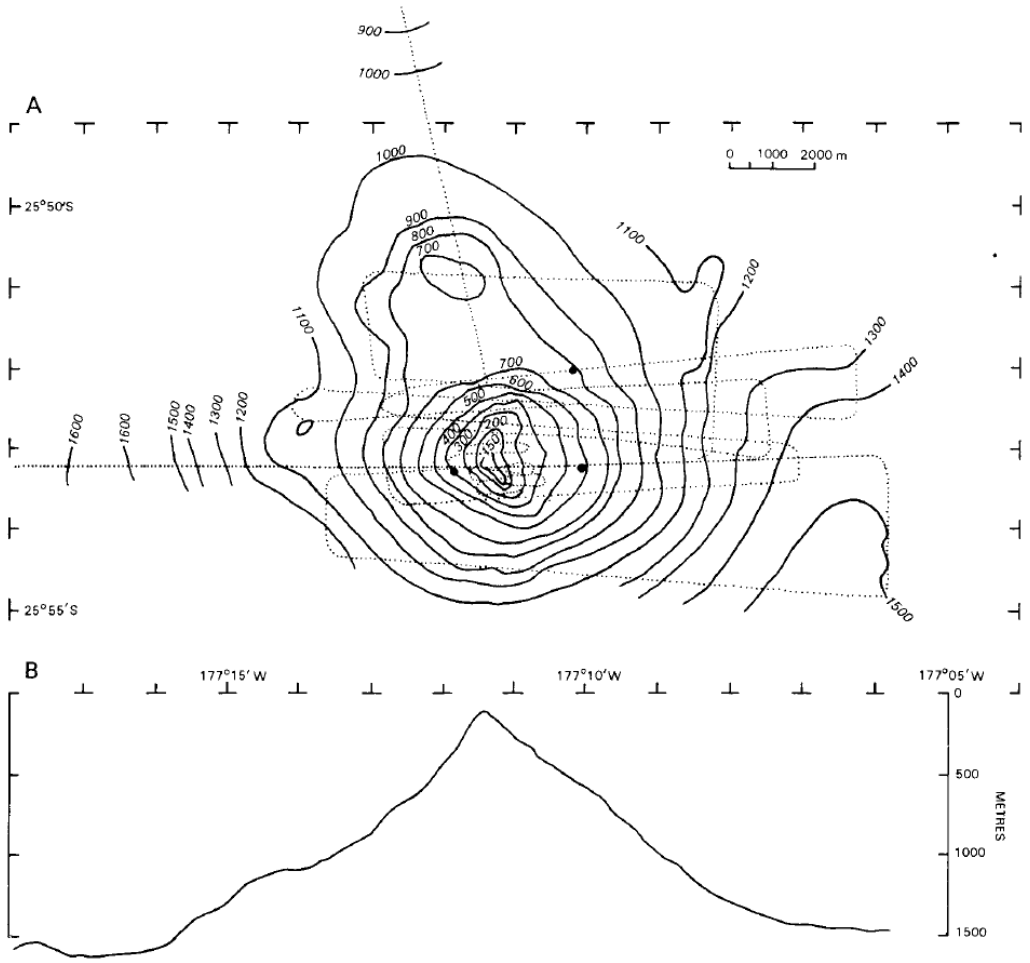


Fig. 3 **A** Bathymetry of the Monowai seamount, contour interval 100 m. The survey tracks are shown by the dotted line with the position of satellite navigator fixes by filled circles. Mercator projection. **B** A west–east bathymetric profile across the seamount along survey tracks at about 25°53.2'S. The profile crosses the summit of the seamount. Vertical exaggeration is 3.7:1.

First bathymetric map from RNZN Monowai (Davey FJ. 1980. The Monowai Seamount : an active submarine colcanic centre on the Tonga Kermadec ridge (Note). NZ Jour. Geol. Geoph. 23, 533-536.)

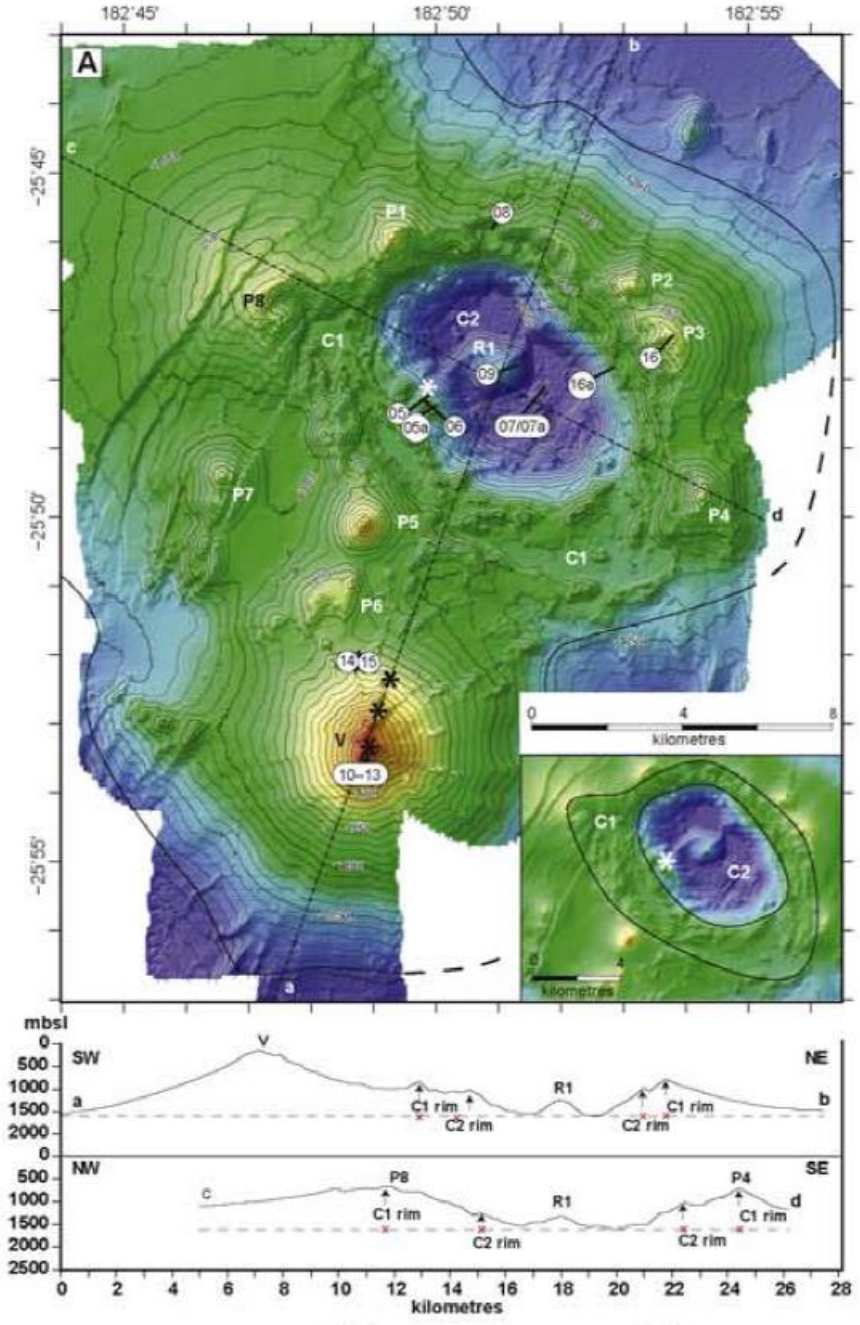


Figure 7 of Graham et al., 2008.