

UNDERSEA FEATURE NAME PROPOSAL

(Sea NOTE overleaf)

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

Name Proposed:	Giggenbach 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)
	30°02.15'S (centre)	178°42.75'W (centre)
	30°1.683'S	178°46.233'W
	30°1.983'S	178°42.917'W
	30°2.133'S	178°40.45'W
	30°3.033'S	178°39.983'W
	30°4.033'S	178°39.85'W
	30°4.6'S	178°41.317'W
	30°3.883'S	178°44.033'W
	30°2.483'S	178°46.283'W
	30°1.817'S	178°46.983'W
30°1.683'S	178°46.317'W	
30°2.683'S	178°46.233'W	

Feature Description:	Maximum Depth:	1250 metres	Steepness :	
	Minimum Depth :	65 metres	Shape :	Volcanic cone
	Total Relief :	1185 metres	Dimension/Size :	10 x 10 km

Associated Features:	Giggenbach Seamount is 35 km NW of Macauley Island in the Kermadec volcanic arc.
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Chart/Map References:	Shown Named on Map/Chart: Named in internationally peer reviewed journals	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. de Ronde, CE J et al. (2007), Submarine hydrothermal activity along the mid-Kermadec Arc, New Zealand: Large-scale effects on venting. <i>Geochem. Geophys. Geosyst.</i> , 8, Q07007.
	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 eminent geochemist/vulcanologist Dr Werner Giggenbach (1937-1997). Dr Giggenbach (FRS) was one of the world's foremost gas geochemists who worked for the DSIR and GNS Science and conducted extensive studies on gas emissions from New Zealand and overseas volcanoes. See: http://www.gsnz.org.nz/info_page/obituaries-i-18.html#wg
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Discovery Facts:	Discovery Date:	March 1982
	Discoverer (Individual, Ship):	RV Tangaroa (1)

Supporting Survey Data, including Track Controls:	Date of Survey:	Multiple surveys
	Survey Ship:	RV Sonne (2007), RV Maurice Ewing (1999), RV Tangaroa (2) (2004)
	Sounding Equipment:	Atlas hydrosweep DS-2, EM 120, EM300 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 Giggenbach Volcano. The New Zealand Geographic Board gazetted Giggenbach Seamount as an official undersea feature name on 26 May 2016.
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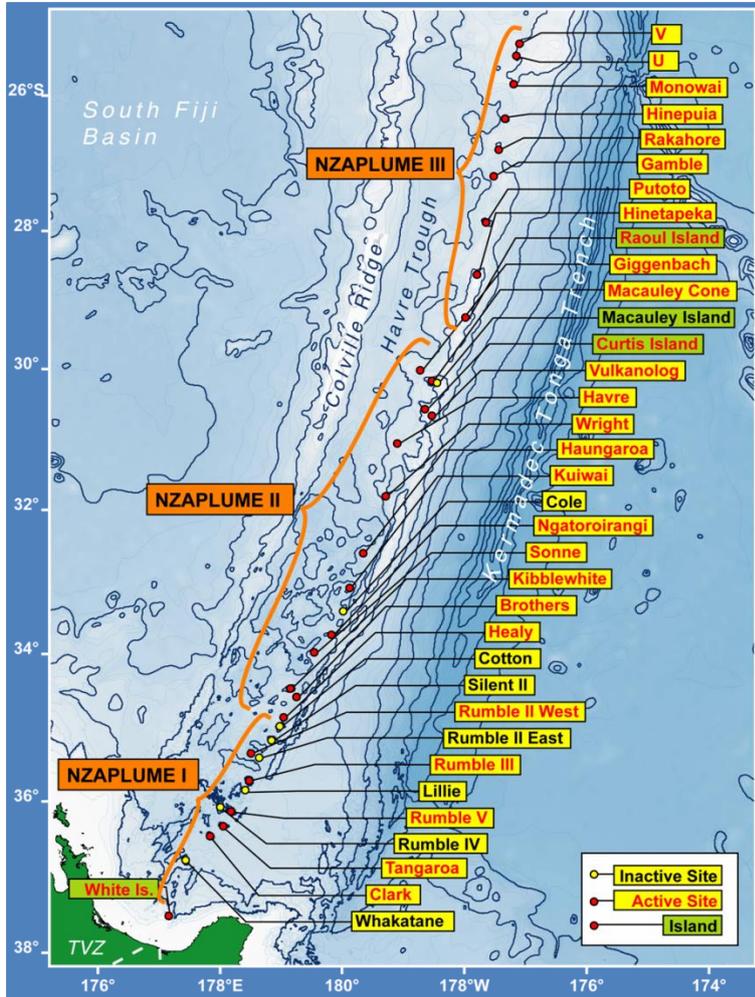
NOTE : This form should be forwarded, when completed :

- 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	Intergovernmental Oceanographic Commission (IOC) UNESCO Place de Fontenoy
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MC 98011 MONACO CEDEX
Principality of MONACO
Fax: +377 93 10 81 40
E-mail: info@ihb.mc

75700 PARIS
France
Fax: +33 1 45 68 58 12
E-mail: info@unesco.org



Commonly used names of volcanoes of the Kermadec 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.

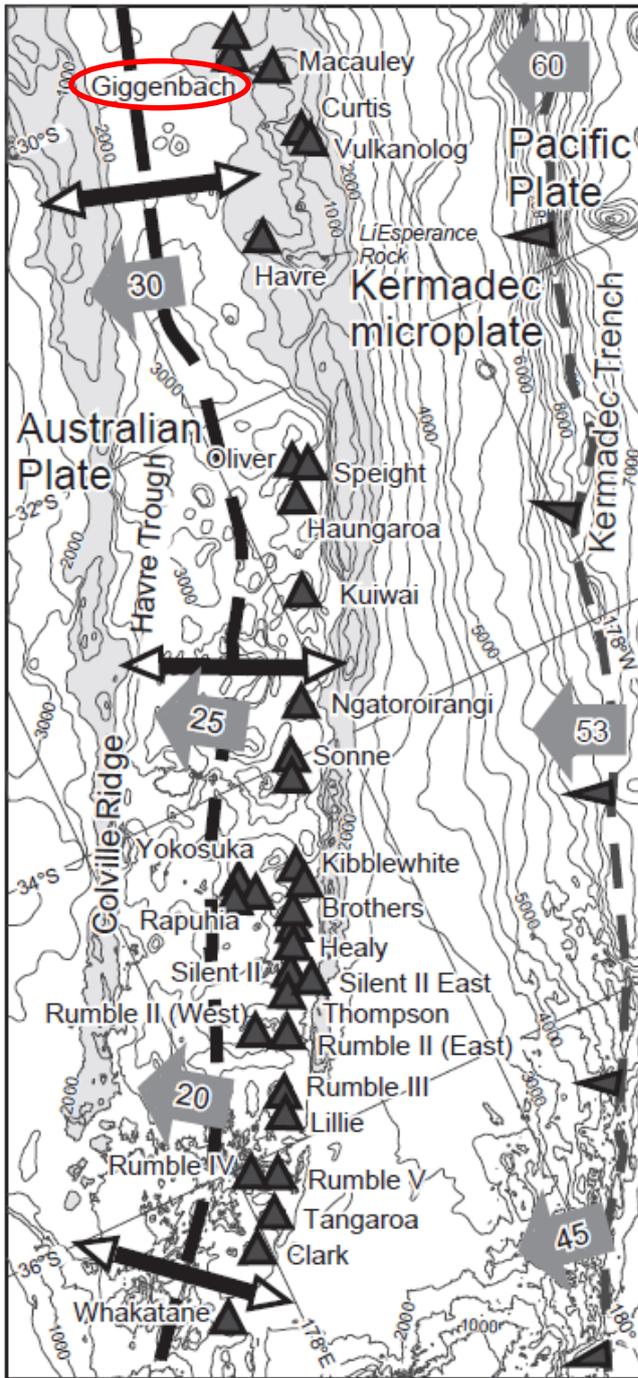
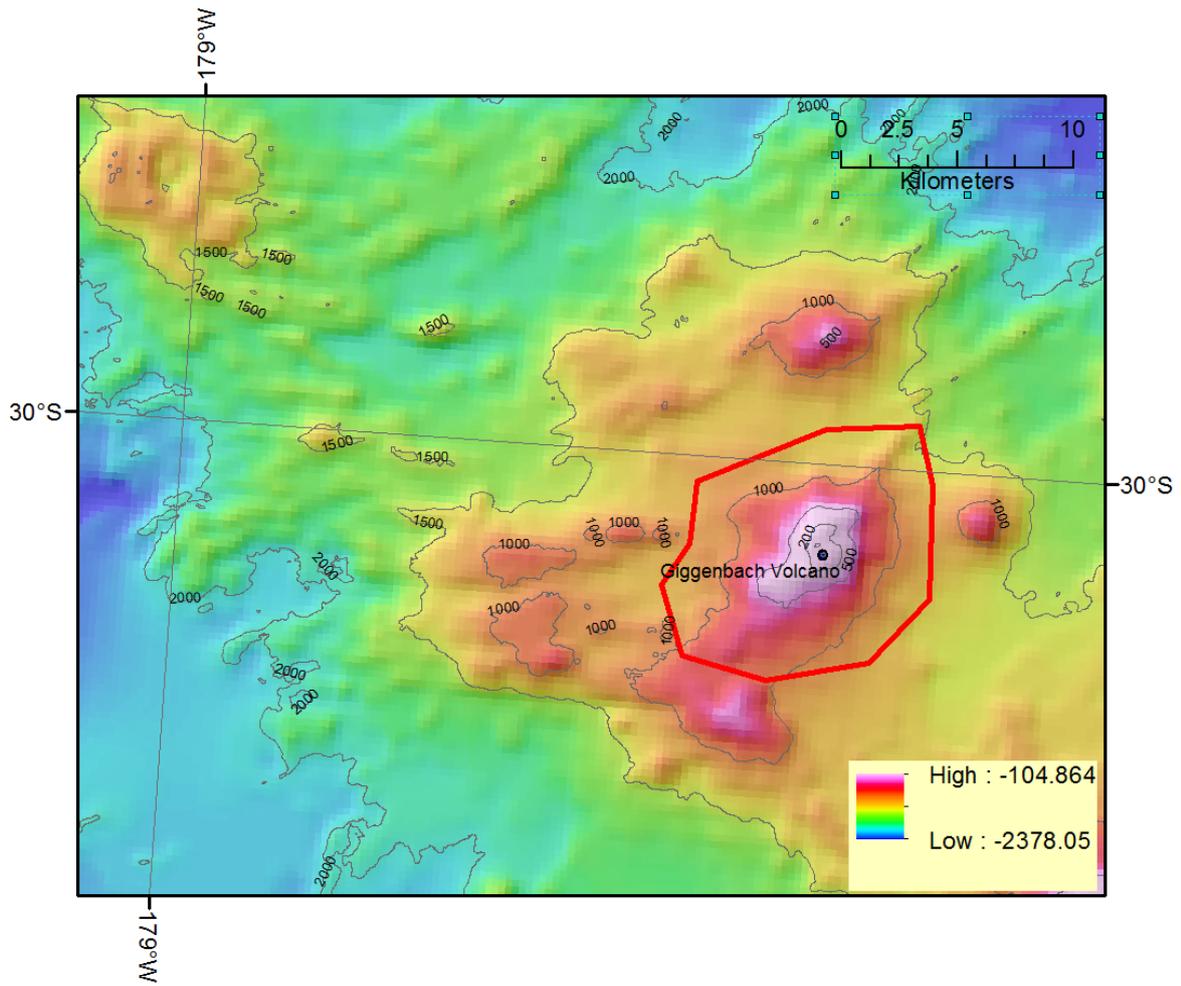
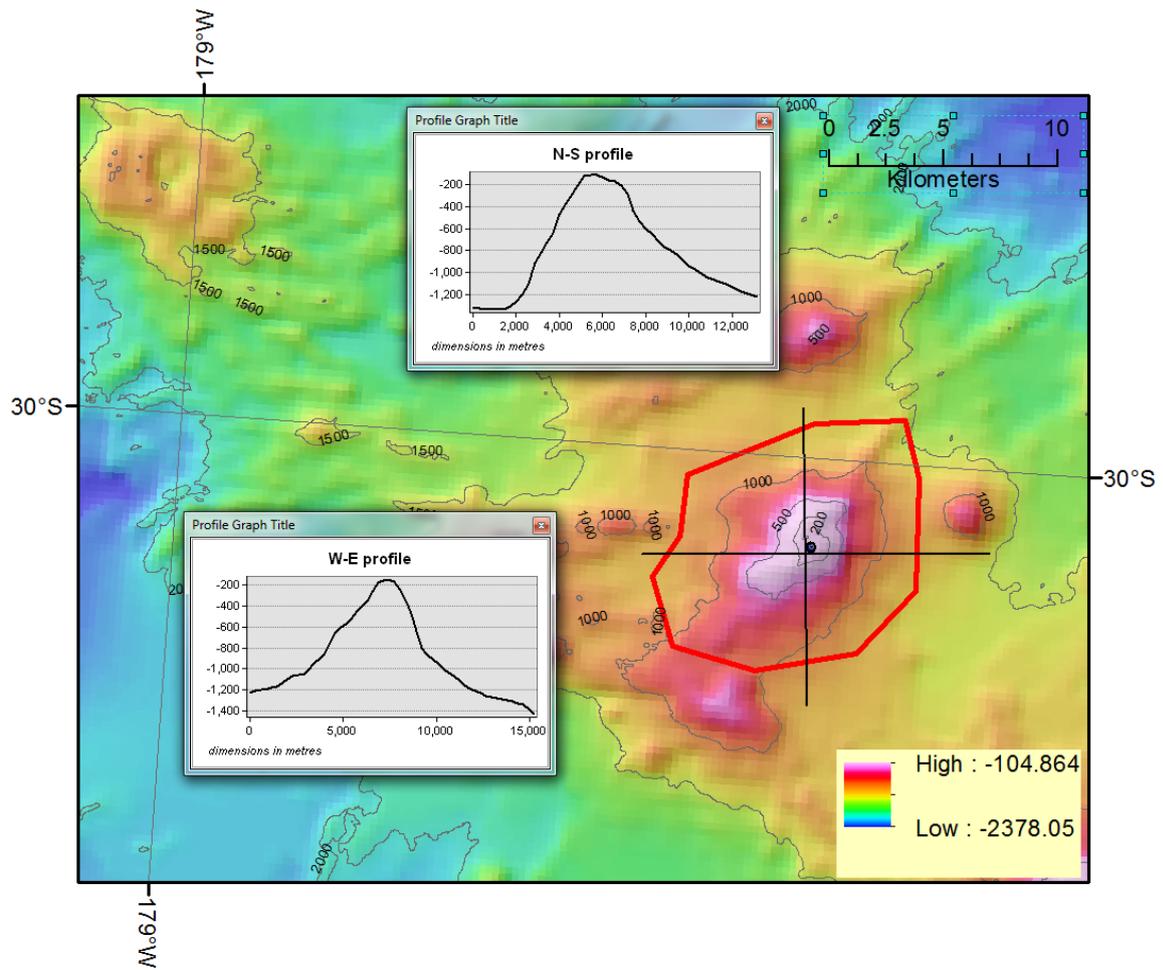


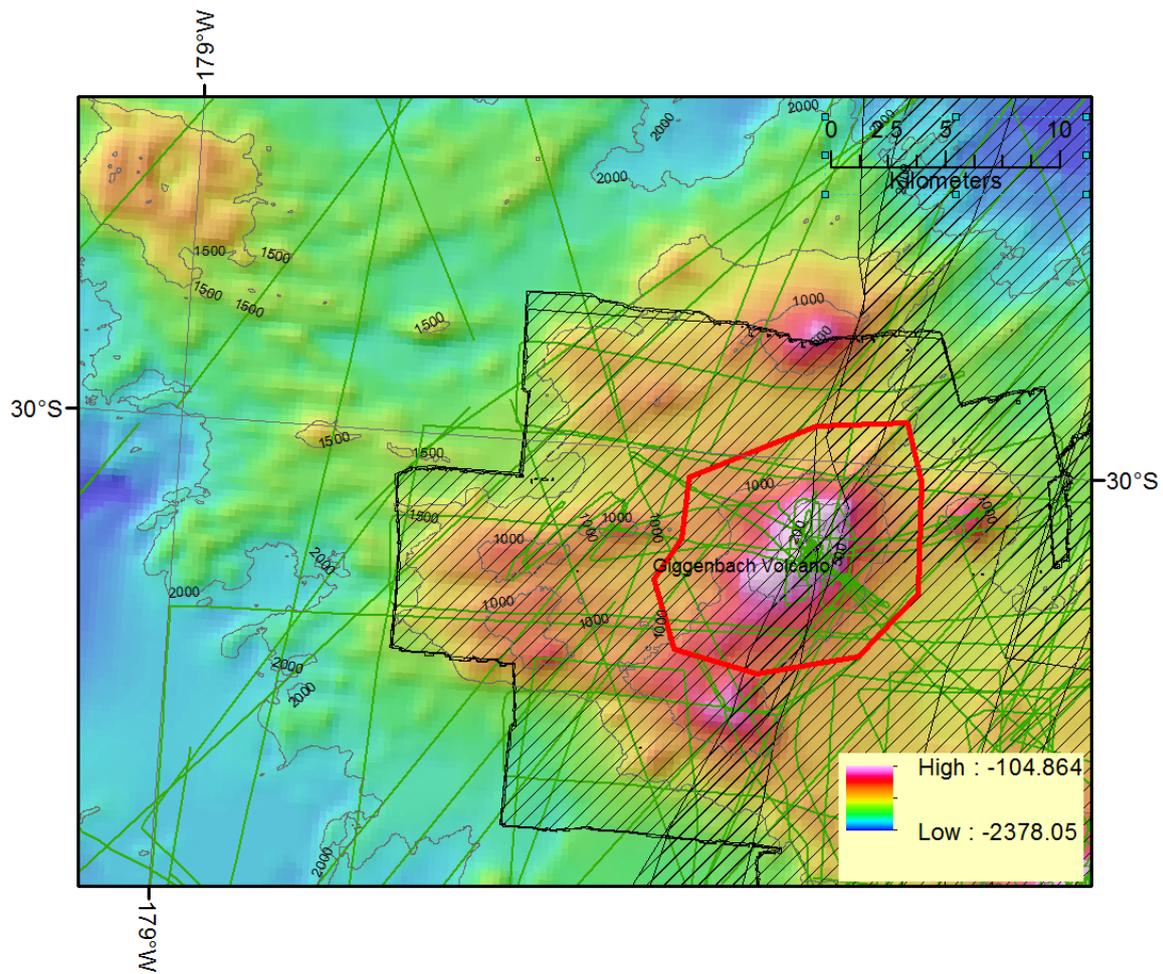
Fig. 2A of Wright et al 2006. Regional setting of the southern and central Kermadec subduction system, including newly discovered volcanoes (closed triangles) of the arc front [including Giggenbach]. Dashed lines show location of the subduction and extensional plate boundaries, east and west of the Kermadec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



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



Profiles of Gigganbach Seamount (dimensions in metres)



Data coverage

Cross-hatch = multibeam bathymetry coverage

Dark green = single beam bathymetry data

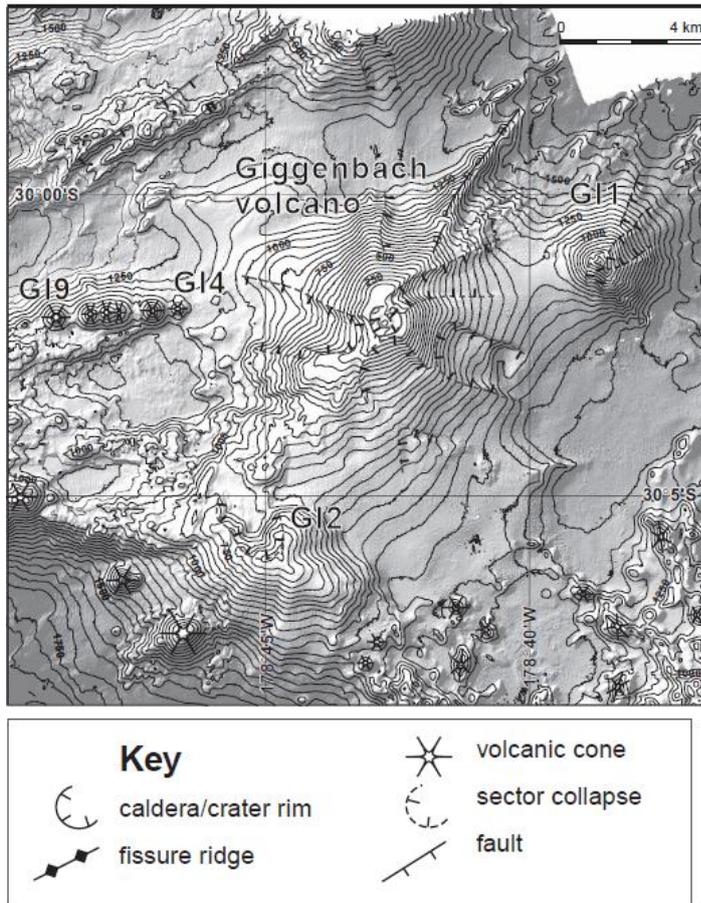


Fig. 4. Bathymetry and synoptic volcanic geology of Giggenbach volcano.

Source: Wright et al., 2006