

UNDERSEA FEATURE NAME PROPOSAL
(Sea NOTE overleaf)

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

Name Proposed:	Hecate Ridge	Ocean or Sea:	North Atlantic Ocean
-----------------------	--------------	----------------------	----------------------

Geometry that best defines the feature (Yes/No) :						
Point	Line	Polygon	Multiple points	Multiple lines*	Multiple polygons*	Combination of geometries*
	yes					

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

	Lat. (e.g. 63°32.6'N)	Long. (e.g. 046°21.3'W)
	52°40.8'N	037°15.0'W, to
Coordinates:	52°06.0'N	027°39.0'W

Feature Description:	Maximum Depth:	3500 meters	Steepness :	variable
	Minimum Depth :	1240 meters	Shape :	long, narrow isolated ridge
	Total Relief :	2260 meters	Dimension/Size :	647 km long, 29 km wide

Associated Features:	Hecate Seamount, Charlie-Gibbs Fracture Zone
-----------------------------	--

Chart/Map References:	Shown Named on Map/Chart:	unnamed
	Shown Unnamed on Map/Chart:	Ridge is made up of all area above the 3500 meters isobath along the line from 52°40.8'N 037°15.0'W to 52°06.0'N 027°39.0'W , referenced above. The ridge lies down the central axis of the Charlie-Gibbs Fracture Zone. See accompanying figures.
	Within Area of Map/Chart:	[51°00.0'N 53°30.0'N 038°00.0'W 026°45.0'W]

Reason for Choice of Name (if a person, state how associated with the feature to be named):	The name 'Hecate Ridge' has been used in oceanographic peer-reviewed research papers since at least 1992 (e.g. McCartney, M. "Recirculating components to the deep boundary current of the northern North Atlantic", Progress in Oceanography, 1992 - see page 347). The ridge name refers to the previously-named seamount at the eastern end of the ridge.
--	--

Discovery Facts:	Discovery Date:	n/a
	Discoverer (Individual, Ship):	n/a

Supporting Survey Data, including	Date of Survey:	n/a
--	------------------------	-----

Track Controls:	Survey Ship:	n/a
	Sounding Equipment:	n/a
	Type of Navigation:	n/a
	Estimated Horizontal Accuracy (nm):	n/a
	Survey Track Spacing:	n/a
	Supporting material can be submitted as Annex in analog or digital form.	

Proposer(s):	Name(s):	Heather Hunt Furey
	Date:	16 August 2017
	E-mail:	hfurey@whoi.edu
	Organization and Address:	Woods Hole Oceanographic Institution Clark 324A, MS#21 360 Woods Hole Road Woods Hole, MA USA 02540
	Concurrer (name, e-mail, organization and address):	

Remarks:	
-----------------	--

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 <u>Principality of MONACO</u> 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
---	--

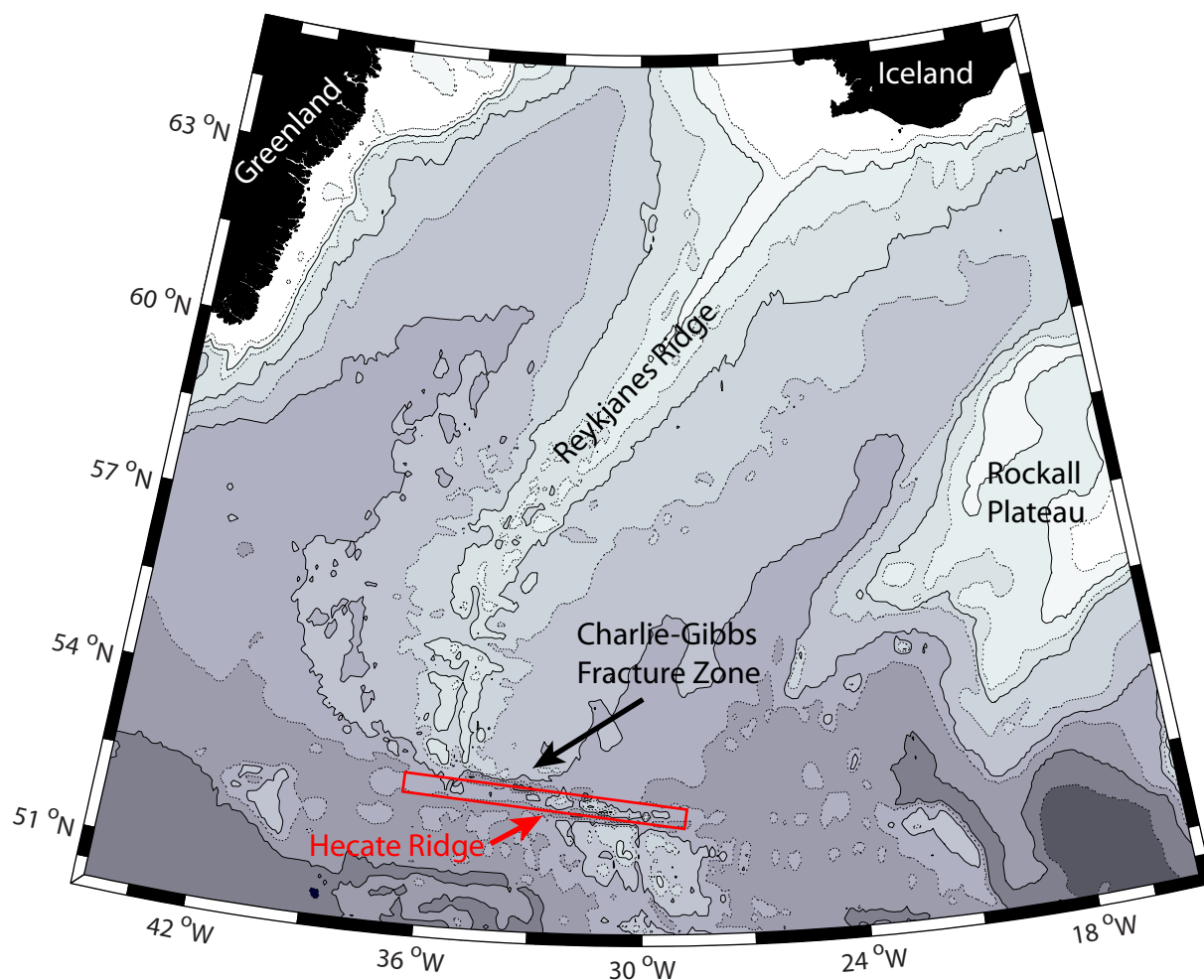


Figure 1. Overview of the region containing the proposed Hecate Ridge, which lies in the center of the Charlie-Gibbs Fracture Zone, at the terminus of the Reykjanes Ridge. Bathymetry data base ETOPO5, 5 minute resolution.

Heather Hunt Furey (hfurey@whoi.edu)
 Woods Hole Oceanographic Institution, Woods Hole, MA

International Hydrographic Organization

Undersea Feature Name Proposal:

Hecate Ridge: zonal (axial) ridge through center of Charlie-Gibbs Fracture Zone
 with bathymetry shallower than 3500 meters depth,
 spanning [52°40.8'N 37°15.0'W] to [52°06.0'N 27°39.0'W].

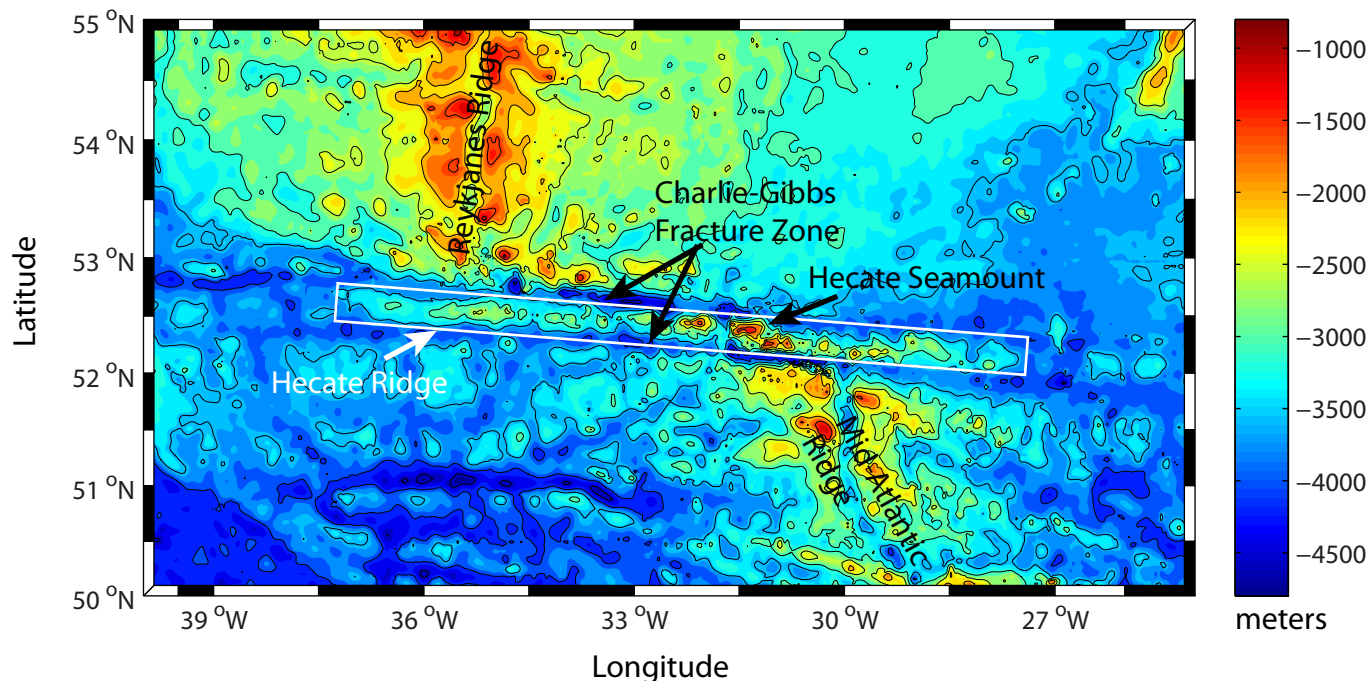


Figure 2. Zoom-in of the region containing the proposed Hecate Ridge, which lies in the center of the Charlie-Gibbs Fracture Zone, at the terminus of the Reykjanes Ridge, and is bounded by the white box drawn on this figure. The Hecate Seamount is a named seamount on this ridge. The term ‘Hecate Ridge’ has been used in oceanographic peer-reviewed research papers since at least 1992 (e.g. McCartney, M. “Recirculating components to the deep boundary current of the northern North Atlantic”, *Progress in Oceanography*, 1992 - see page 347). Bathymetry at 2 minute resolution from Smith and Sandwell database, see *Smith, W. H. F., and D. T. Sandwell, Global seafloor topography from satellite altimetry and ship depth soundings, Science, v. 277, p. 1957-1962, 26 Sept., 1997.*

Heather Hunt Furey (hfurey@whoi.edu)
Woods Hole Oceanographic Institution, Woods Hole, MA

International Hydrographic Organization
Undersea Feature Name Proposal:

Hecate Ridge: zonal (axial) ridge through center of Charlie-Gibbs Fracture Zone with bathymetry shallower than 3500 meters depth, spanning [52°40.8’N 37°15.0’W] to [52°06.0’N 27°39.0’W].

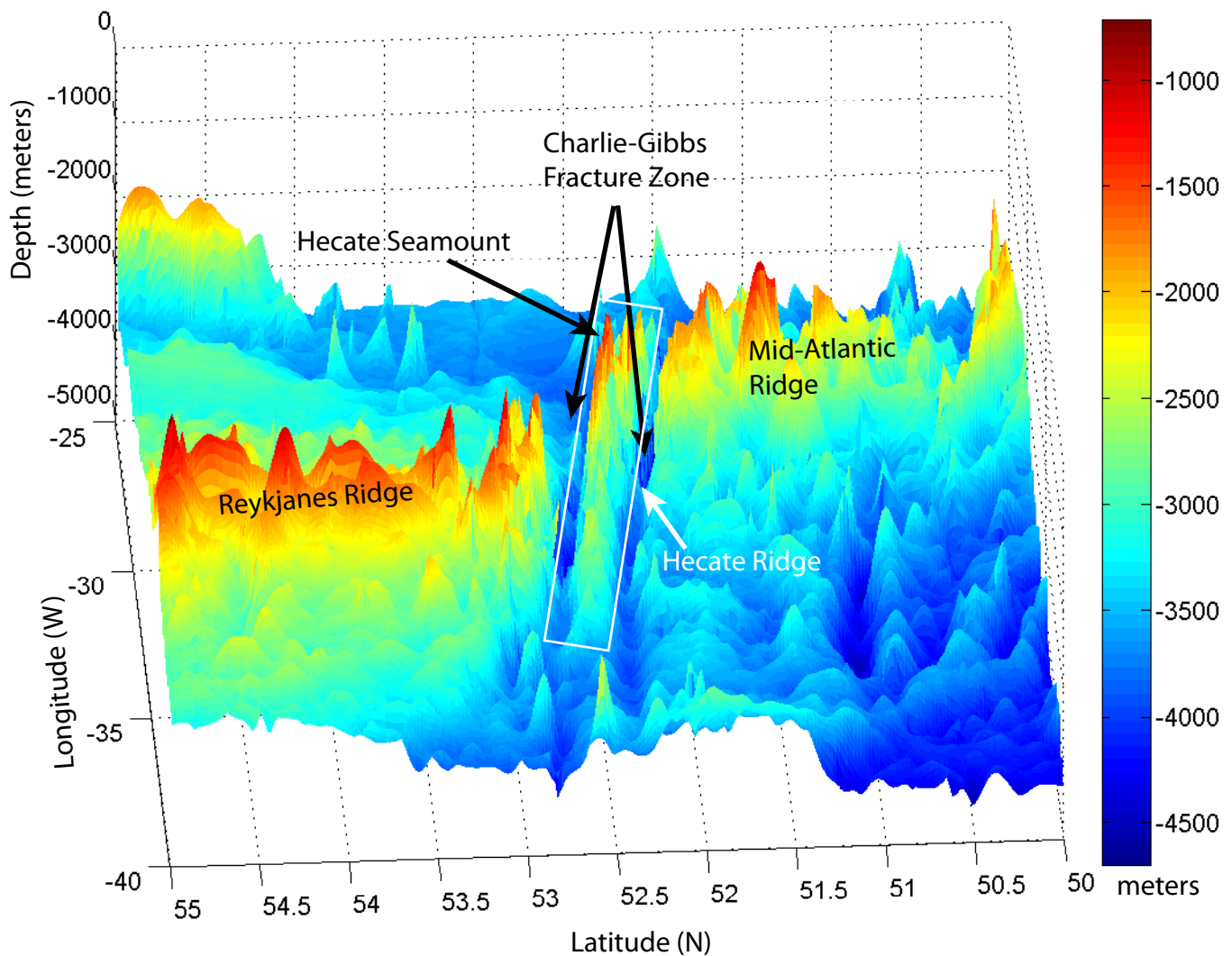


Figure 3. Zoom-in of the region containing the proposed Hecate Ridge, which lies in the center of the Charlie-Gibbs Fracture Zone, at the terminus of the Reykjanes Ridge, and is bounded by the white box drawn on this figure. The Hecate Seamount is a named seamount on this ridge. The term ‘Hecate Ridge’ has been used in oceanographic peer-reviewed research papers since at least 1992 (e.g. McCartney, M. “Recirculating components to the deep boundary current of the northern North Atlantic”, *Progress in Oceanography*, 1992 - see page 347). This figure is similar to Figure 2, but shows the region rendered in 3D.

Bathymetry at 2 minute resolution from Smith and Sandwell database, see *Smith, W. H. F., and D. T. Sandwell, Global seafloor topography from satellite altimetry and ship depth soundings, Science, v. 277, p. 1957-1962, 26 Sept., 1997.*

Heather Hunt Furey (hfurey@whoi.edu)
Woods Hole Oceanographic Institution, Woods Hole, MA

International Hydrographic Organization
Undersea Feature Name Proposal:

Hecate Ridge: zonal (axial) ridge through center of Charlie-Gibbs Fracture Zone with bathymetry shallower than 3500 meters depth, spanning [52°40.8’N 37°15.0’W] to [52°06.0’N 27°39.0’W].

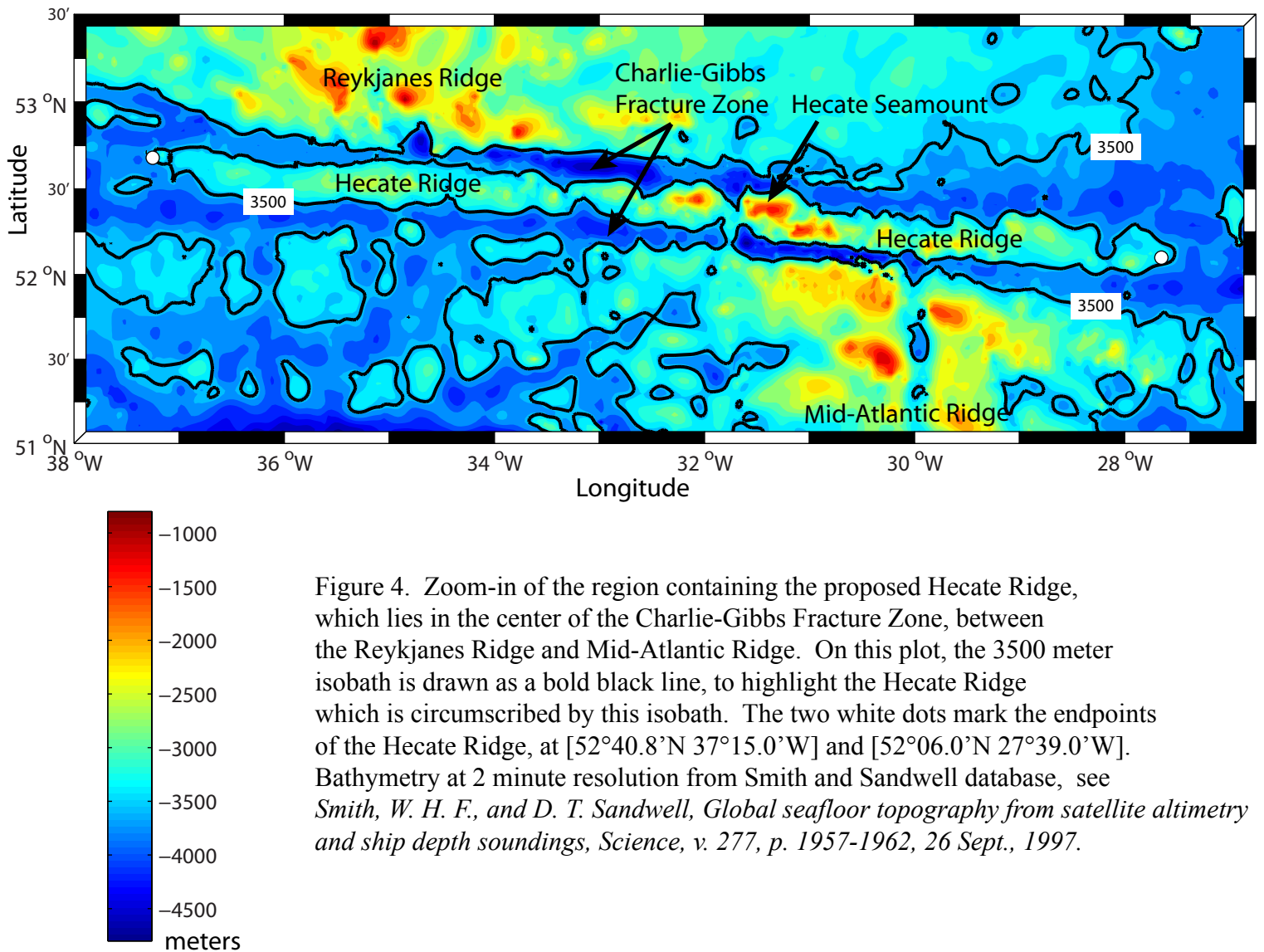


Figure 4. Zoom-in of the region containing the proposed Hecate Ridge, which lies in the center of the Charlie-Gibbs Fracture Zone, between the Reykjanes Ridge and Mid-Atlantic Ridge. On this plot, the 3500 meter isobath is drawn as a bold black line, to highlight the Hecate Ridge which is circumscribed by this isobath. The two white dots mark the endpoints of the Hecate Ridge, at [52°40.8'N 37°15.0'W] and [52°06.0'N 27°39.0'W]. Bathymetry at 2 minute resolution from Smith and Sandwell database, see *Smith, W. H. F., and D. T. Sandwell, Global seafloor topography from satellite altimetry and ship depth soundings, Science, v. 277, p. 1957-1962, 26 Sept., 1997.*

Heather Hunt Furey (hfurey@whoi.edu)
Woods Hole Oceanographic Institution, Woods Hole, MA

International Hydrographic Organization
Undersea Feature Name Proposal:
Hecate Ridge: zonal (axial) ridge through center of Charlie-Gibbs Fracture Zone
with bathymetry shallower than 3500 meters depth,
spanning [52°40.8'N 37°15.0'W] to [52°06.0'N 27°39.0'W].