INTERNATIONAL HYDROGRAPHIC ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

UNDERSEA FEATURE NAME PROPOSAL

(See IHO-IOC Publication B-6 and **NOTE** overleaf)

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

Name Proposed:	Little Zhemchug Canyon (new feature)	**Ocean or Sea:**	Bering Sea

Geometry that best defines the feature (Yes/No) :

Point	Line	Polygon	Multiple points	Multiple lines*	Multiple polygons*	Combination of geometries*
Yes	Yes	No	No	Yes	No	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)
Coordinates:	Point (1915 m) 56° 49.9'N	Point (1915 m) 173° 36.6'W
	Line1 Start (124 m) 57° 15.0'N	Line1 Start (124 m) 173° 22.0'W
	Line1 Mid1 (305 m) 57° 06.8'N	Line1 Mid1 (305 m) 173° 31.5'W
	Line1 Mid2 (1236 m) 56° 56.5'N	Line1 Mid2 (1236 m) 173° 30.1'W
	Line1 End (1533 m) 56° 51.9'N	Line1 End (1533 m) 173° 34.1'W
	Line2 Start (115 m) 57° 07.7'N	Line2 Start (115 m) 172° 37.2'W
	Line2 Mid1 (134 m) 56° 46.4'N	Line2 Mid1 (134 m) 172° 46.6'W
	Line2 Mid2 (425 m) 56° 52.4'N	Line2 Mid2 (425 m) 173° 23.1'W
	Line2 Mid3 (1533 m) 56° 51.9'N	Line2 Mid3 (1533 m) 173° 34.1'W
	Line2 Mid4 (1915 m) 56° 49.9'N	Line2 Mid4 (1915 m) 173° 36.6'W
	Line2 Mid5 (2760 m) 56° 42.0'N	Line2 Mid5 (2760 m) 173° 40.1'W
	Line2 Mid6 (3094 m) 56° 32.6'N	Line2 Mid6 (3094 m) 173° 33.9'W
	Line2 Mid7 (3413 m) 56° 12.8'N	Line2 Mid7 (3413 m) 174° 05.0'W
	Line2 Mid8 (3630 m) 56° 01.3'N	Line2 Mid8 (3630 m) 175° 15.9'W
	Line2 End (3694 m) 54° 38.5'N	Line2 End (3694 m) 175° 17.0'W

Feature Description:	Maximum Depth:	3694 m	Steepness :	0.7°
	Minimum Depth :	115 m	Shape :	U/V
	Total Relief :	3579 m	Dimension/Size :	453175 m long/ ~30000 m wide

Associated Features:	Bering canyons, Pribilof Island area canyons, Zhemchug Canyon

Chart/Map References:	Shown Named on Map/Chart:	
	Shown Unnamed on Map/Chart:	US Nav. Chart 16011, 16012
	Within Area of Map/Chart:	

Reason for Choice of Name (if a person, state how associated with the feature to be named)**:**	Our proposed canyon is not recognized by ACUF or GEBCO. While the north thalweg drains a smaller area than the east thalweg, the north thalweg runs down a more distinct canyon. We have supplied coordinates for the north thalweg as Line 1 and the east thalweg (plus remainder of the canyon) as line 2. The single point is just down stream from where the two thalwegs meet, at the steepest part of the canyon. Zhemchug Canyon falls on the northern

	side of Saint Paul Spur (ACUF) Zhemchug is the dominant canyon, our Little Zhemchug Canyon falls on the southern side of the spur, sourced from the same waters as Zhemchug.	
Discovery Facts:	Discovery Date:	2018
	Discoverer (Individual, Ship):	2018
Supporting Survey Data, including Track Controls:	Date of Survey:	various
	Survey Ship:	various
	Sounding Equipement:	various
	Type of Navigation:	various
	Estimated Horizontal Accuracy, in nautical miles (M):	100 m horizontal resolution bathymetry surface
	Survey Track Spacing:	various
	Supporting material can be submitted as Annex in analog or digital form. Please see Zimmermann and Prescott (2018)	
Proposer(s):	Name(s):	Mark Zimmmermann & Megan Prescott
	Date:	July 2018
	E-mail:	mark.zimmermann@noaa.gov
	Organization and Address:	National Marine Fisheries Service, NOAA, Alaska Fisheries Science Center, 7600 Sand Point Way NE, Bldg. 4, Seattle, WA 98115-6349 USA
	Concurrer (name, e-mail, organization and address):	
Remarks:	Zimmermann and Prescott (2018): shown in Fig. 7 (please see below). Harris et al. (2014): a short section is recognized as shelf incising canyon C8836. Harris and Whiteway (2011): part of the north thlaweg and the upper part of the main canyon are recognized as one unnamed canyon, while a location near the east thalweg is recognized as a small, separate canyon.	

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 Publication B-6) or, if this does not exist or is not known, either to the IHO 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 IHO or to the IOC, at the following addresses :

International Hydrographic Organization (IHO) 4b, Quai Antoine 1er B.P. 445 MC 98011 MONACO CEDEX Principality of MONACO Fax: +377 93 10 81 40 E-mail: info@iho.int Web: www.iho.int	Intergovernmental Oceanographic Commission (IOC) UNESCO Place de Fontenoy 75700 PARIS France Fax: +33 1 45 68 58 12 E-mail: info@unesco.org Web: http://ioc-unesco.org/

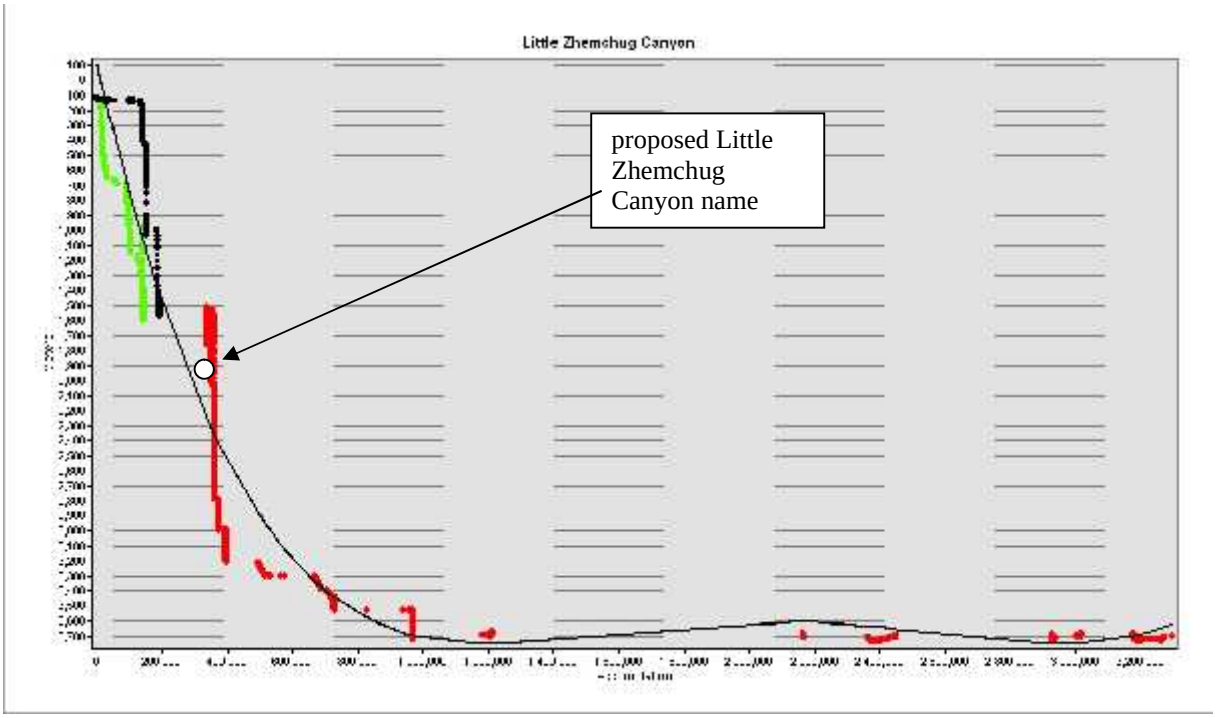

Figure 1. Plot of depth and accumulation of raster cells along main thalweg path (red points), north thalweg (green points), and east thalweg (black points) with fitted curve.

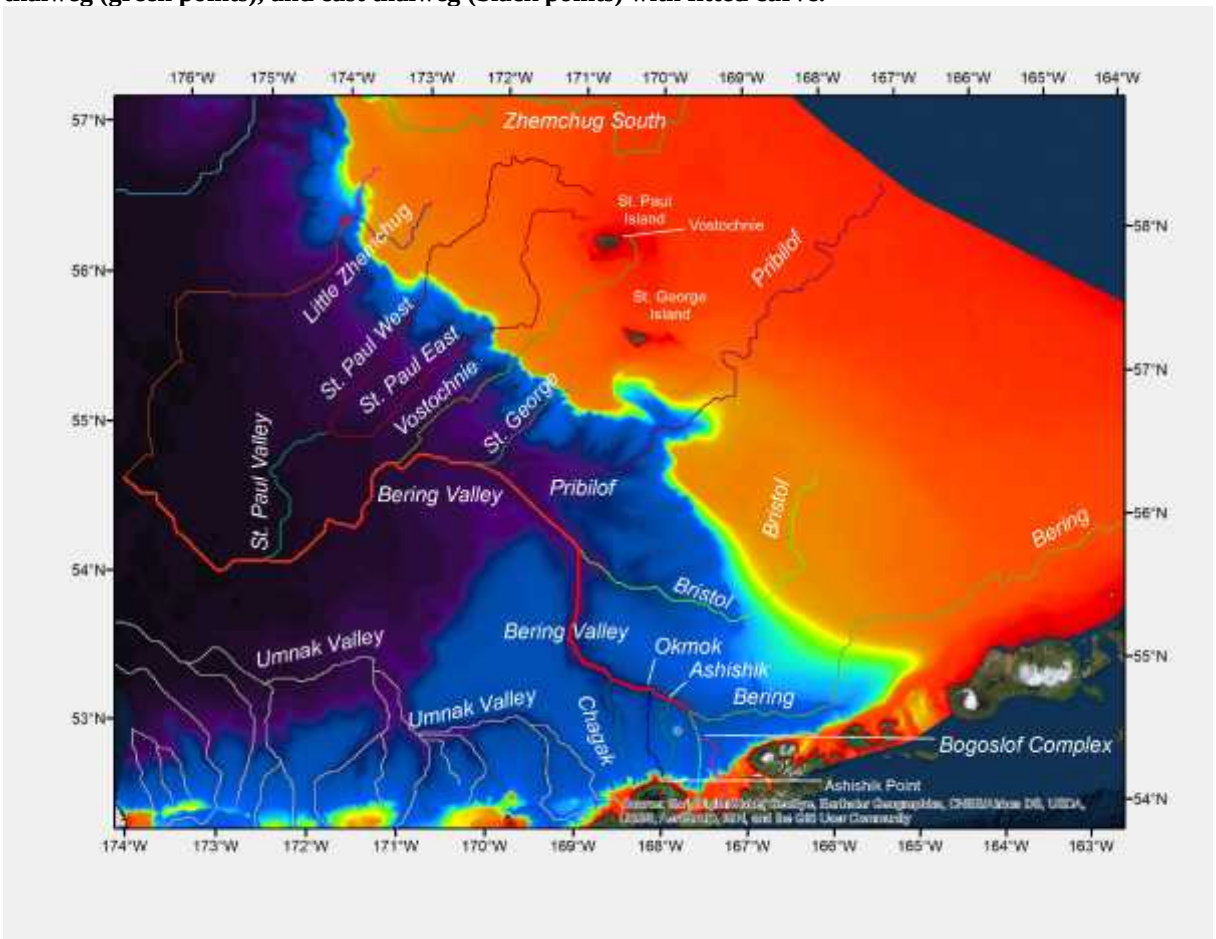

Figure 2. Modified version of Fig 7. (Zimmermann &Prescott, 2018) "Thalwegs of the Bering Canyon area of the eastern Bering Sea slope" showing proposed Little Zhemchug Canyon place name.