IBCSO v1.0

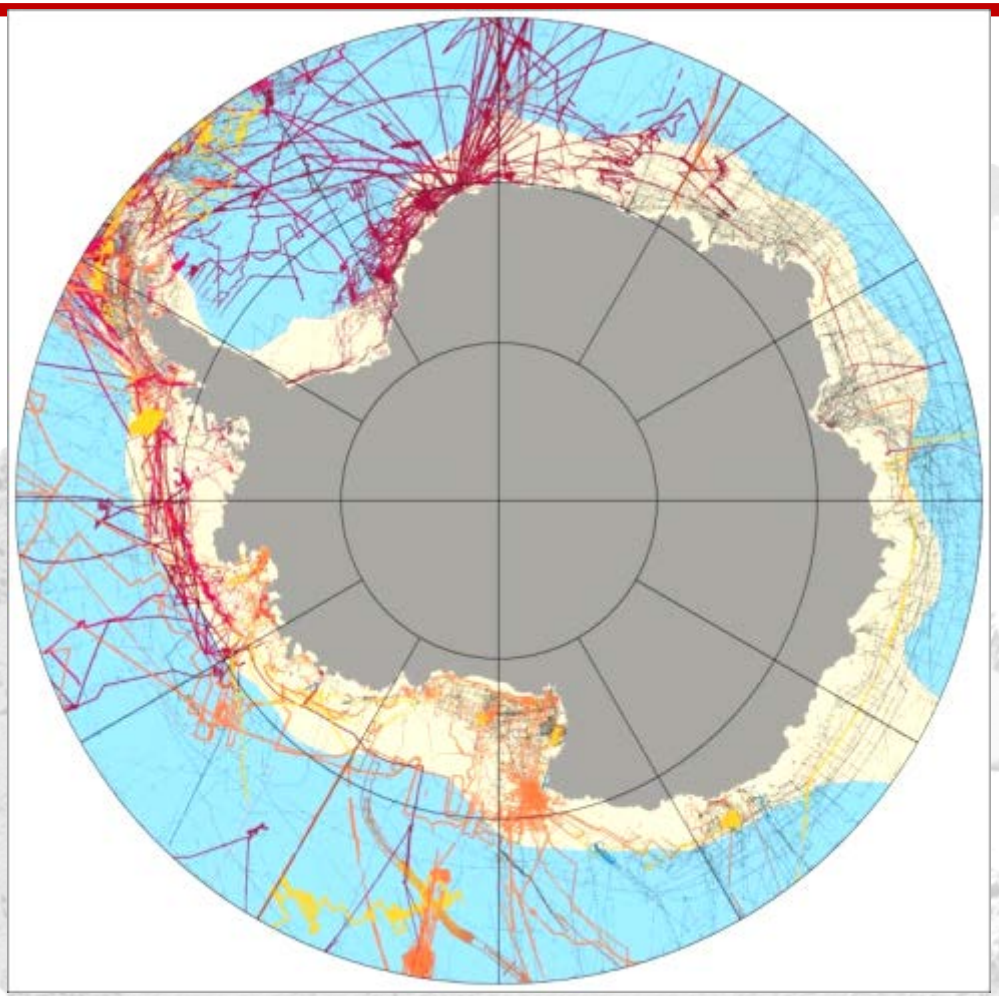
A new view on Antarctic bathymetry

Arndt, Jan Erik[1)]; Schenke, Hans Werner[1)]; Jakobsson, Martin[2)]; Nitsche, Frank O. [3)]; Buys, Gwen[4)]; Goleby, Bruce[5)]; Rebesco, Michele[6)]; Bohoyo, Fernando [7)]; Hong, Jong-Kuk [8)]; Black, Jenny [9)]; Greku, Rudolf [10)]; Udintsev, Gleb [11)]; Barrios, Felipe [12)]; Reynoso-Peralta, Walter [13)]; Taisei, Morishita [14)]; Wigley, Rochelle [15)];

[1)] Alfred-Wegener-Institute; [2)] Stockholm University; [3)] Lamont-Doherty Earth Observatory; [4)] British Antarctic Survey; [5)] Geoscience Australia; [6)]Istituto Nazionale di Oceanografia e di Geofisica Sperimentale; [7)] Instituto Geológico y Minero de España; [8)] Korean Polar Research Institute; [9)] Institute of Geological and Nuclear Sciences; [10)] Institute of Geological Sciences; [11)] Vernadsky Institute of Geochemistry and Analytical Chemistry; [12)] Department of Hydrography, Chile; [13)] Navy Hydrographic Service, Argentina; [14)] Japan Coast Guard; [15)] University of New Hampshire

Data Contributors

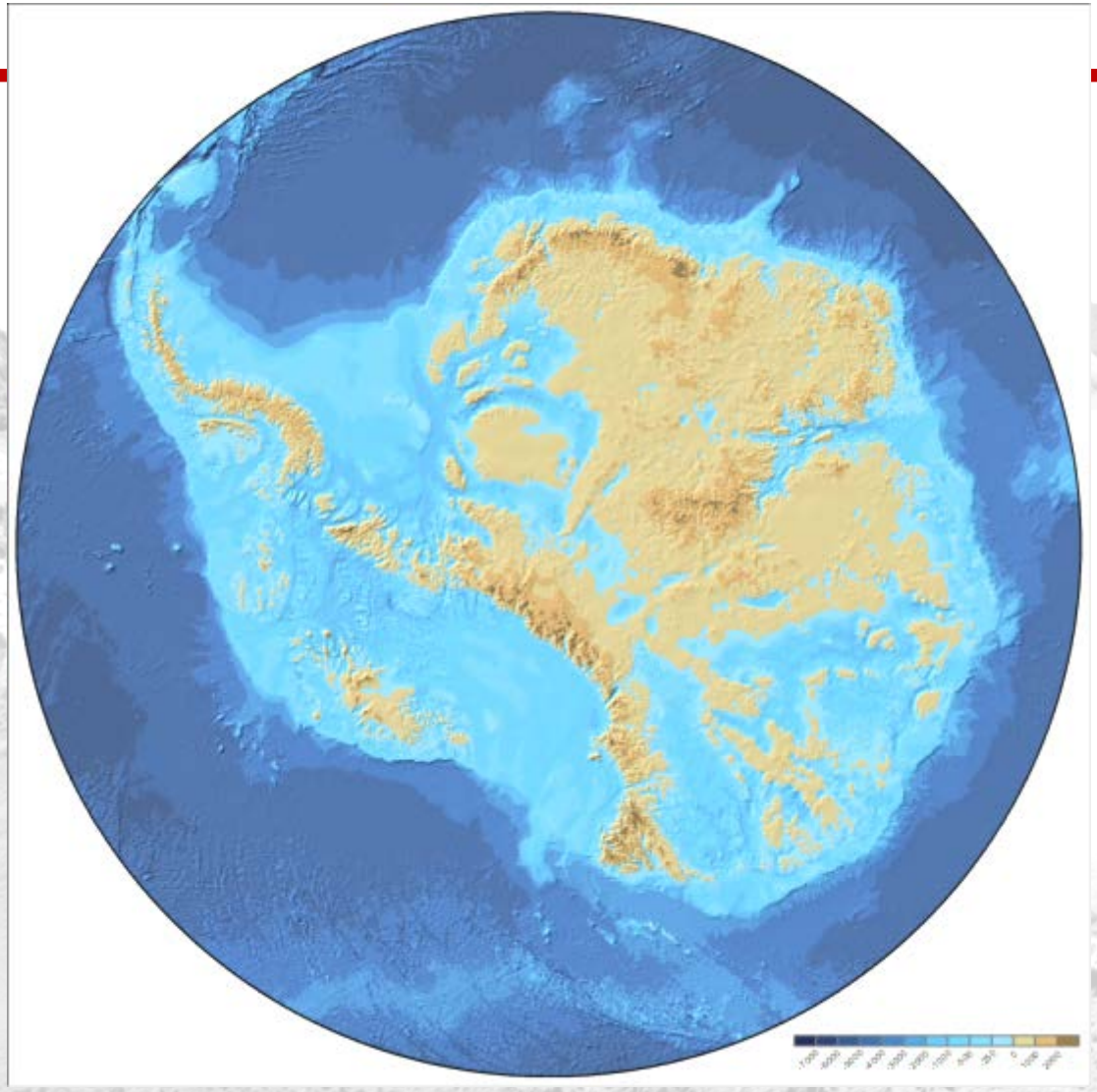
Data Distribution



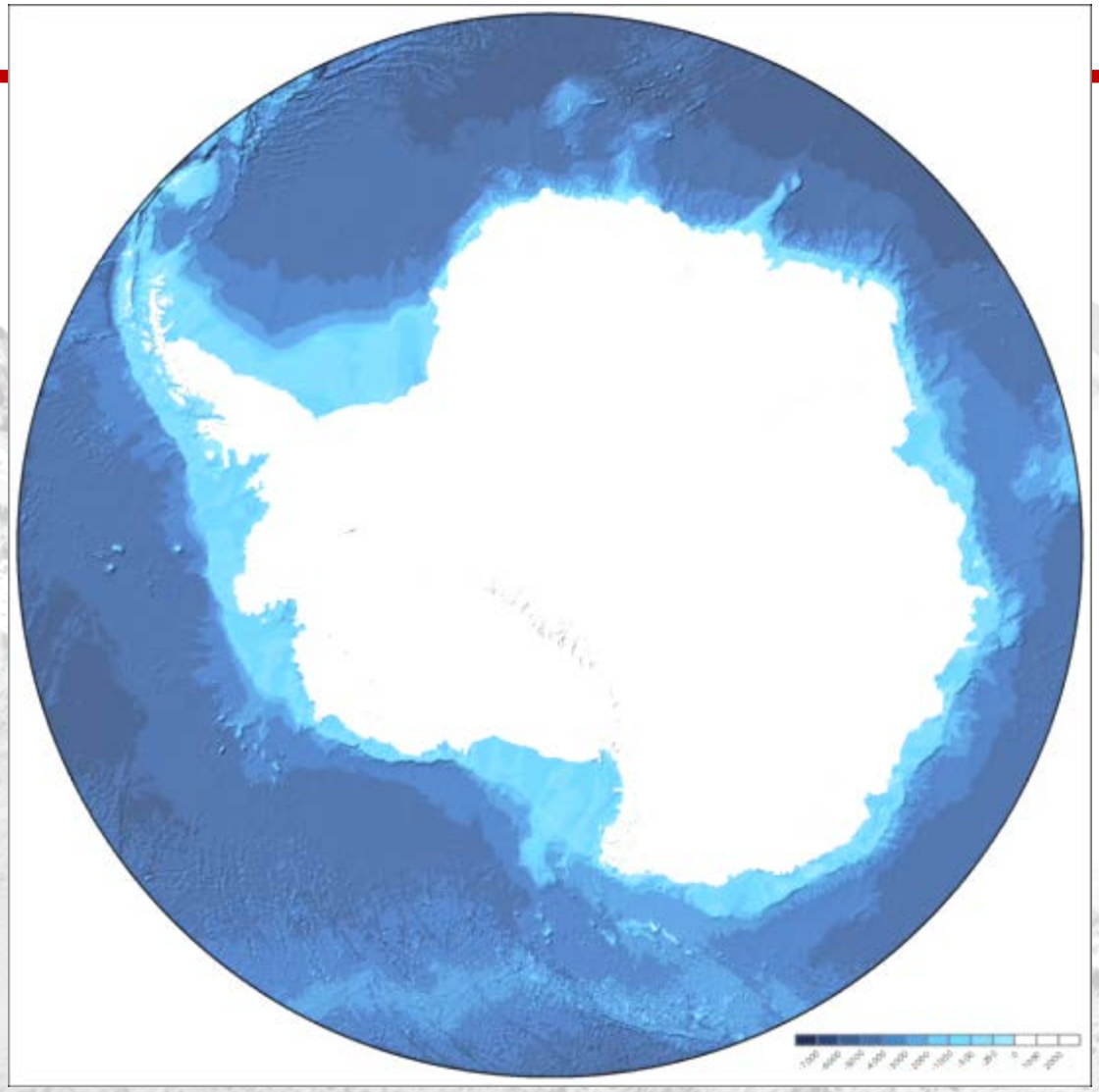
- More than 4200 million soundings
- 15.4 % Multibeam
- 1.4 % Singlebeam

Multibeam from AWI
Multibeam from BAS
Multibeam from MGDS & NGDC
Multibeam from other institutions
Singlebeam
Various Data
Interpolated
GEBCO_08
Bedmap2

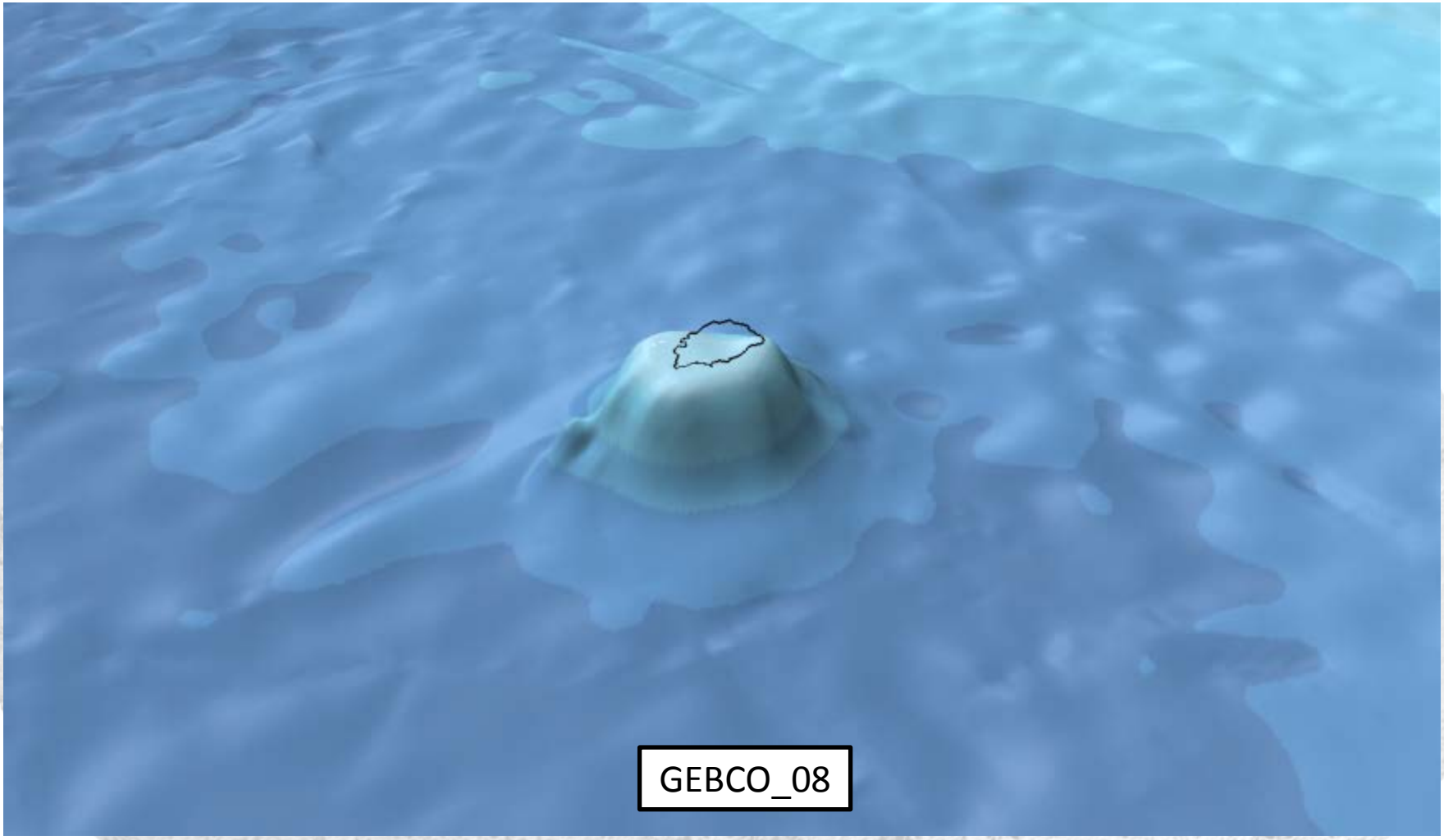
IBCSO Version 1.0



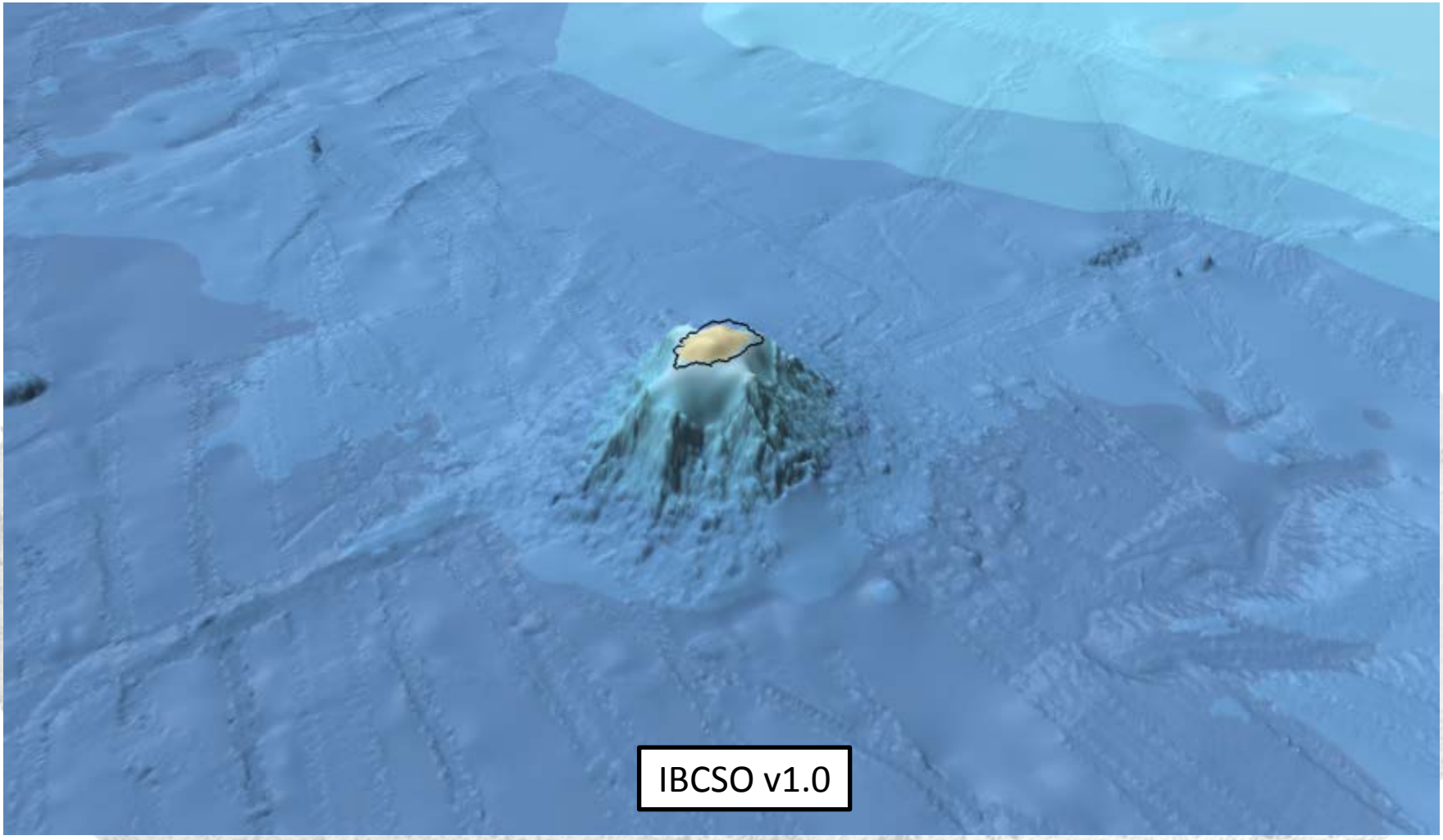
IBCSO Version 1.0



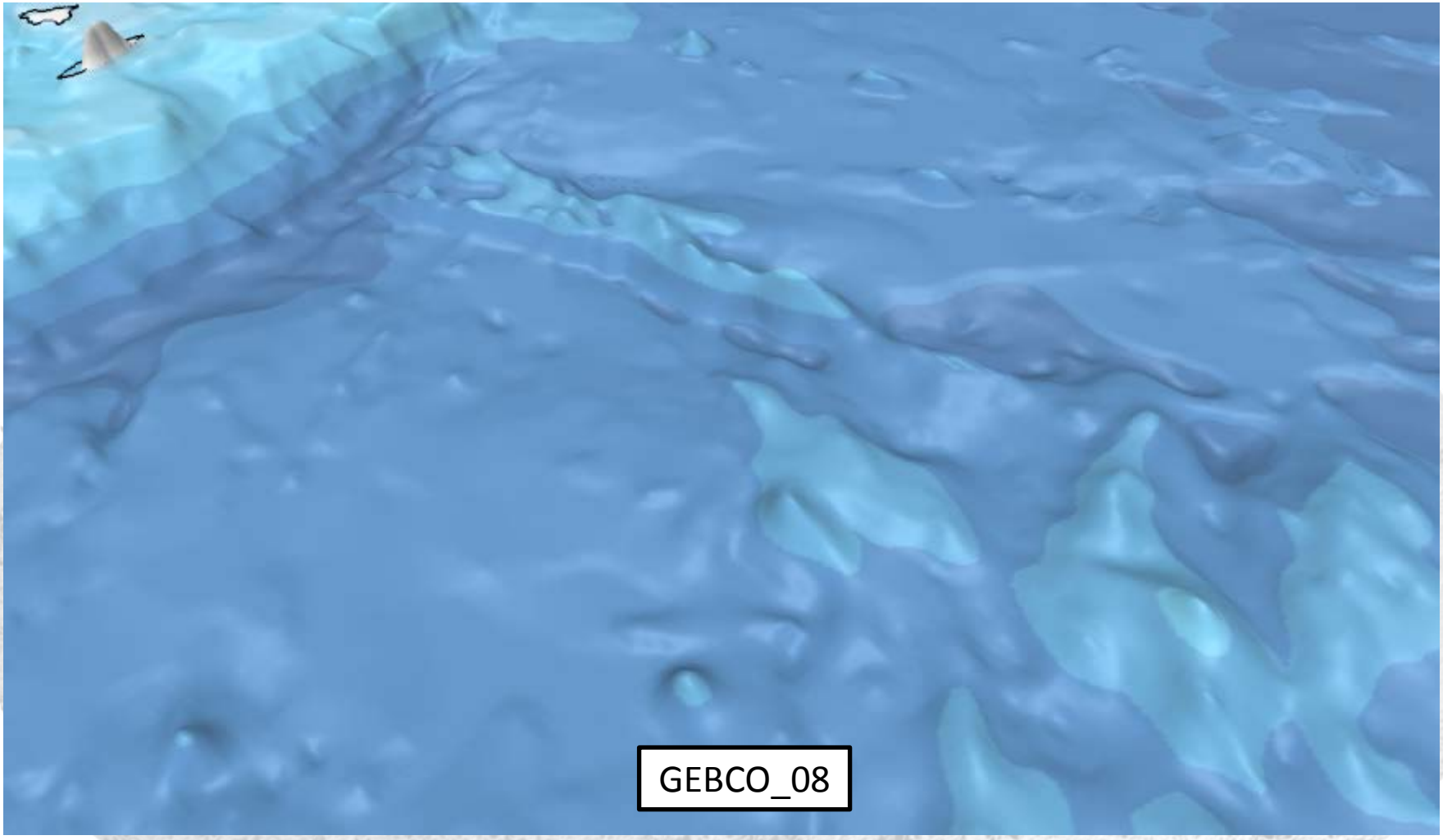
Comparison to GEBCO_08



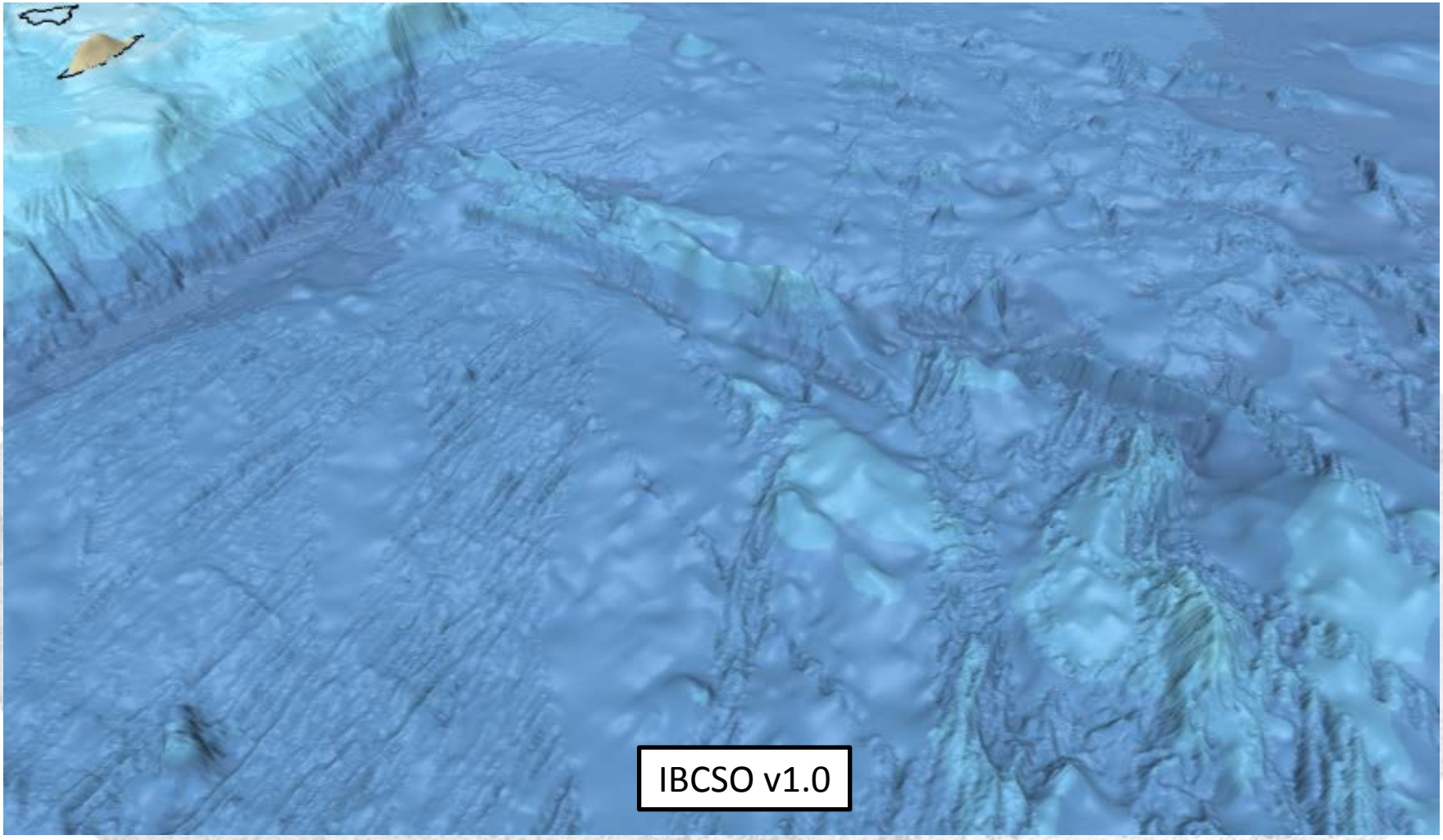
Comparison to GEBCO_08



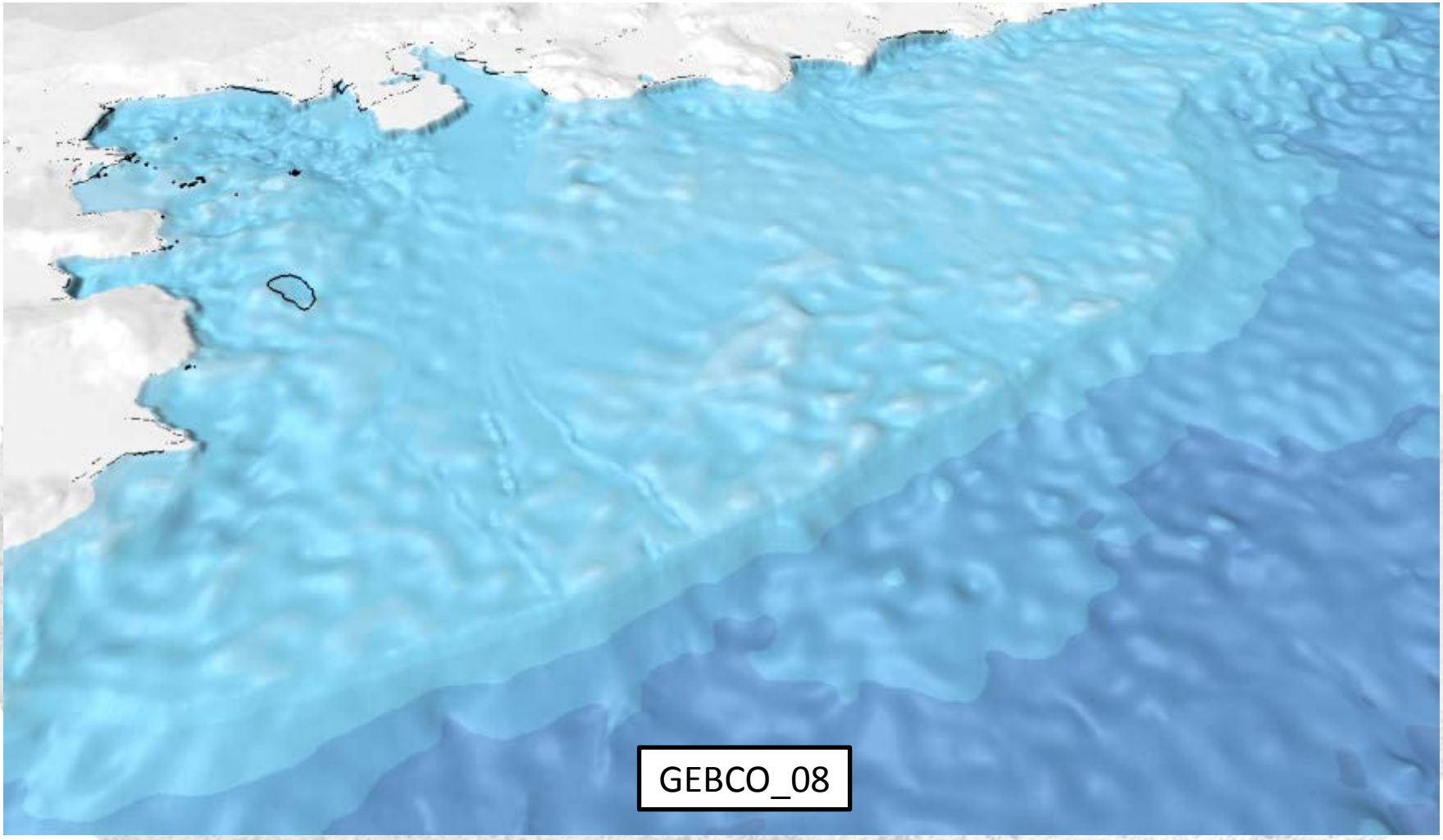
Comparison to GEBCO_08



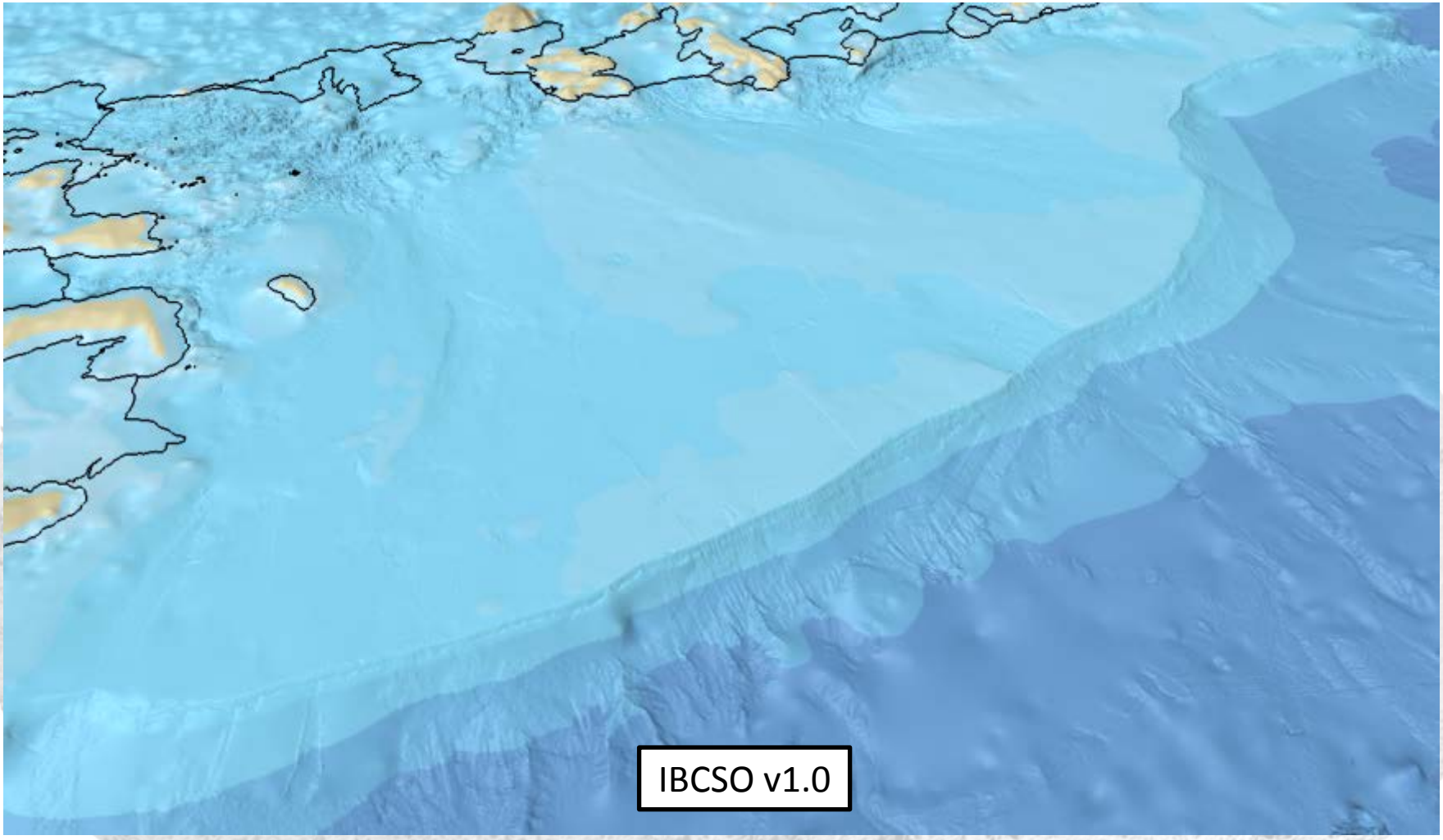
Comparison to GEBCO_08



Comparison to GEBCO_08

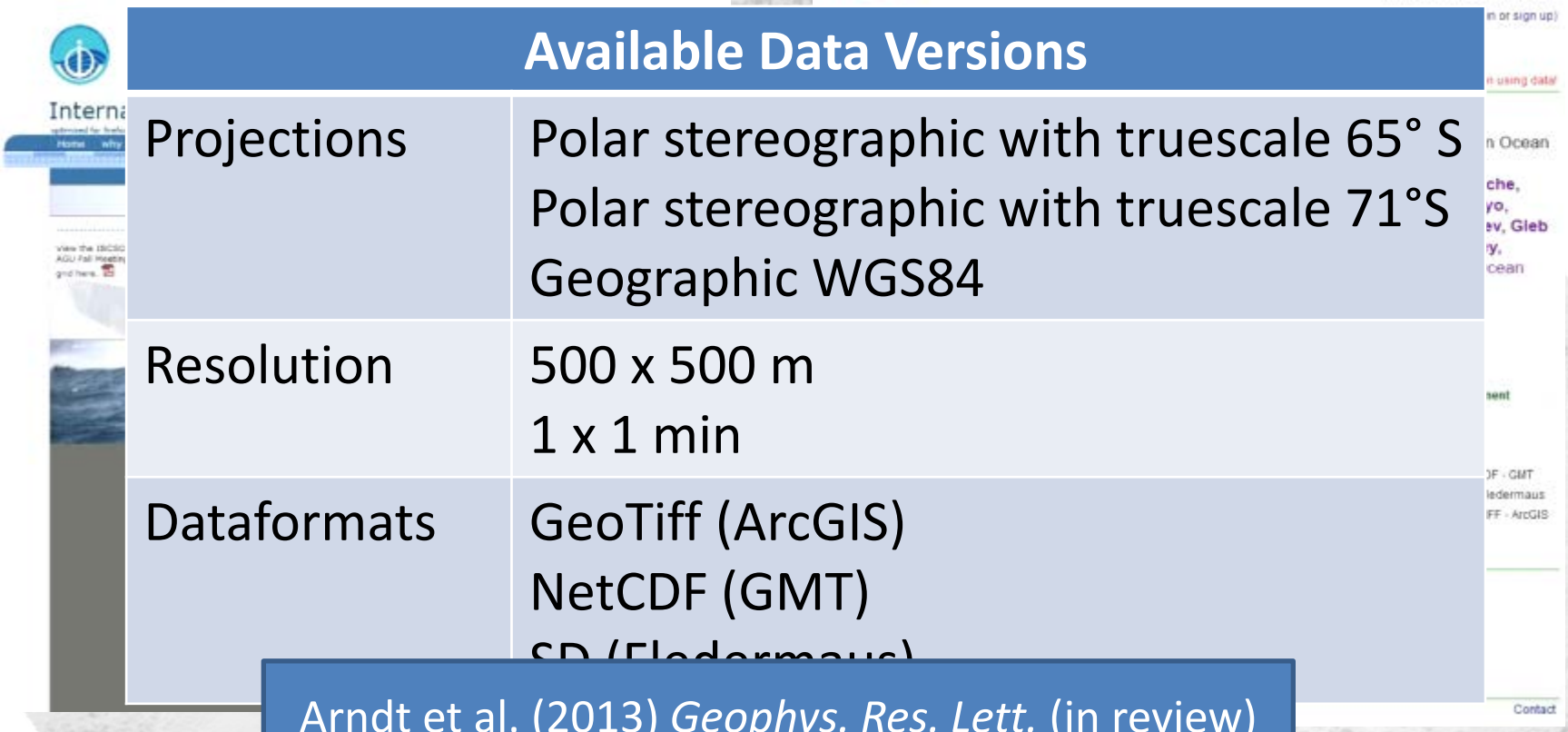


Comparison to GEBCO_08



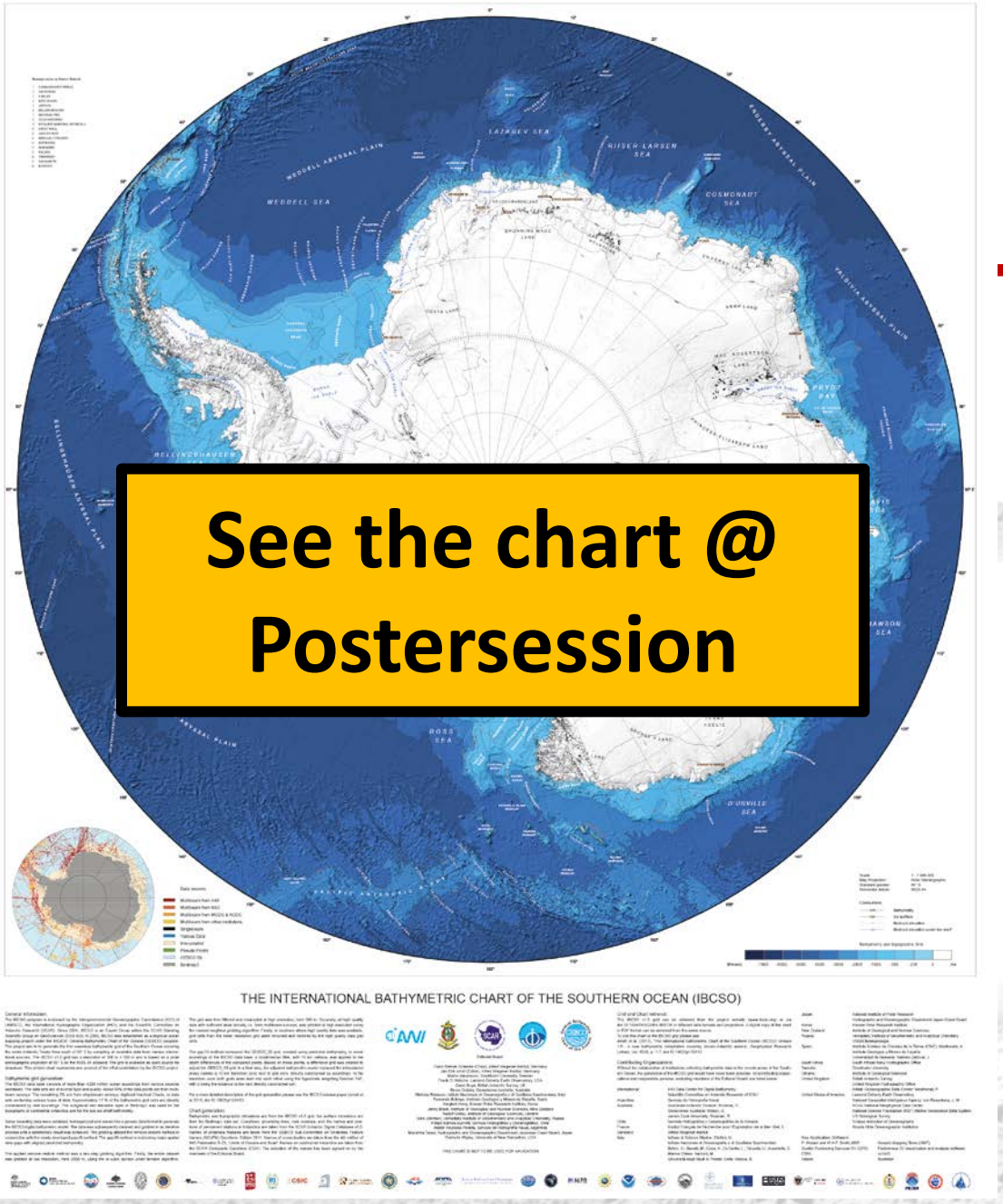
Data retrieval

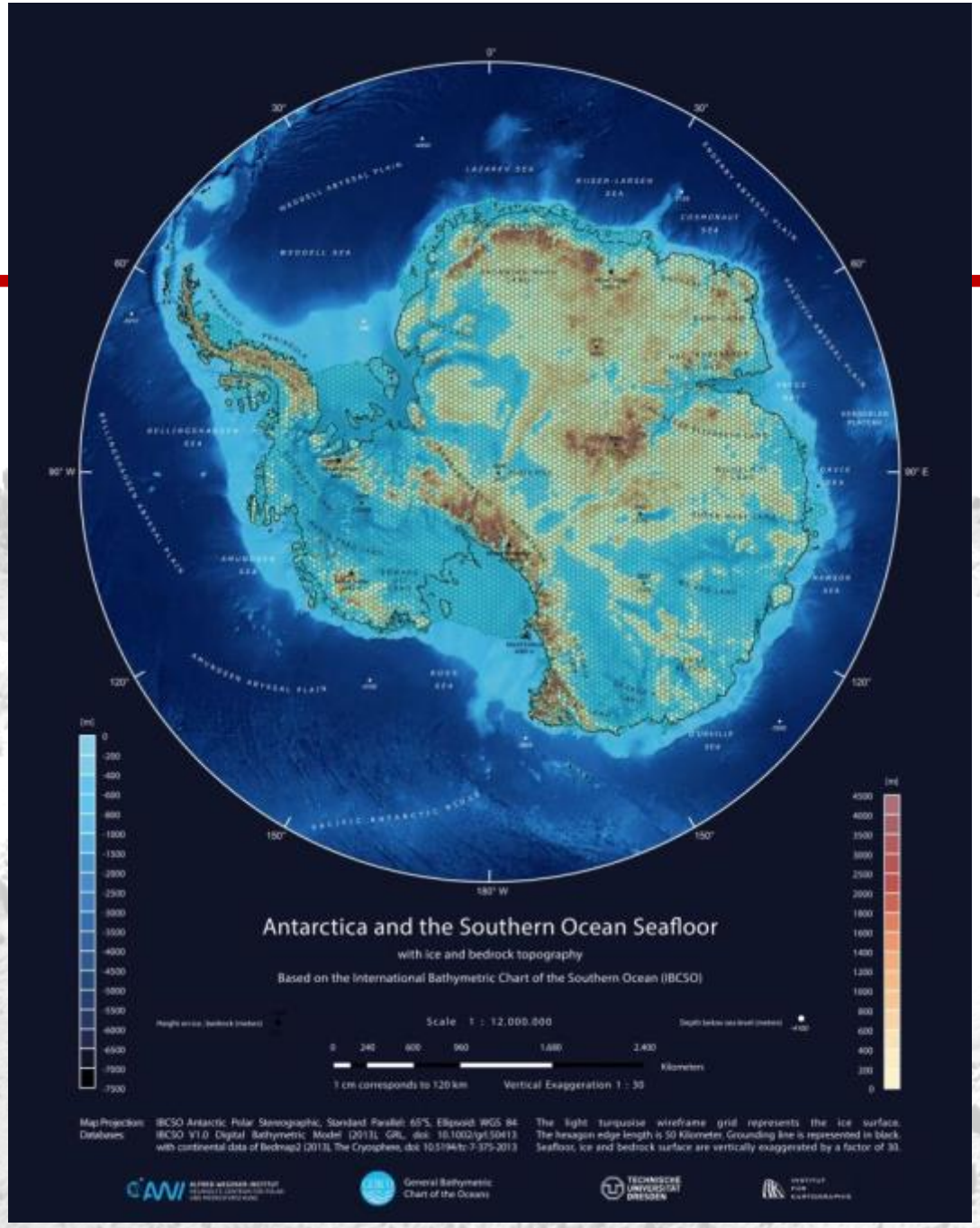
www.ibcso.org -> Data www.pangaea.de -> IBCSO



Available Data Versions	
Projections	Polar stereographic with truescale 65° S Polar stereographic with truescale 71°S Geographic WGS84
Resolution	500 x 500 m 1 x 1 min
Dataformats	GeoTiff (ArcGIS) NetCDF (GMT) SD (Fledermaus)

Arndt et al. (2013) *Geophys. Res. Lett.* (in review)


See the chart @
Postersession
THE INTERNATIONAL BATHYMETRIC CHART OF THE SOUTHERN OCEAN (IBCSO)


Antarctica and the Southern Ocean Seafloor
with ice and bedrock topography
Based on the International Bathymetric Chart of the Southern Ocean (IBCSO)
Scale 1 : 12.000.000
0 240 600 960 1.680 2.400
Kilometers
1 cm corresponds to 120 km
Vertical Exaggeration 1 : 30
Map Projection: IBCSO Antarctic Polar Stereographic, Standard Parallel: 65°S, Ellipsoid: WGS 84
Databases: IBCSO V1.0 Digital Bathymetric Model (2013), GRL, doi: 10.1002/grl.50413
with continental data of Bedmap2 (2013), The Cryosphere, doi: 10.5194/tc-7-375-2013
The light turquoise wireframe grid represents the ice surface.
The hexagon edge length is 50 Kilometer. Grounding line is represented in black.
Seafloor, ice and bedrock surface are vertically exaggerated by a factor of 30.
General Bathymetric Chart of the Oceans

Future of IBCSO!?

Thanks for your attention!

For further information visit

www.ibcso.org

or contact me via

Jan.Erik.Arndt@awi.de

Auxiliary Slide I