

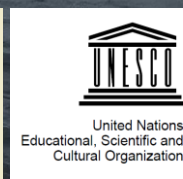
The Fifth Arctic-Antarctic and North Pacific Mapping Meeting



The Nippon Foundation-GEBCO
Seabed 2030 Project



International
Hydrographic
Organization



1. Seahorse
2. Reimplementation of coverage creation
3. First tests of 100m resolution grid
4. Tackled compilations such as NGA and tried to identify original data sources where possible
5. Multires POC was tested and seems to be in line with the approach implemented by Rez
6. Few new data sets, but some major new data sets by Polarstern

Migration to new HPC @AWI

more than 2,000 lines of code
total runtime now 6 hrs (**was 13hours**)

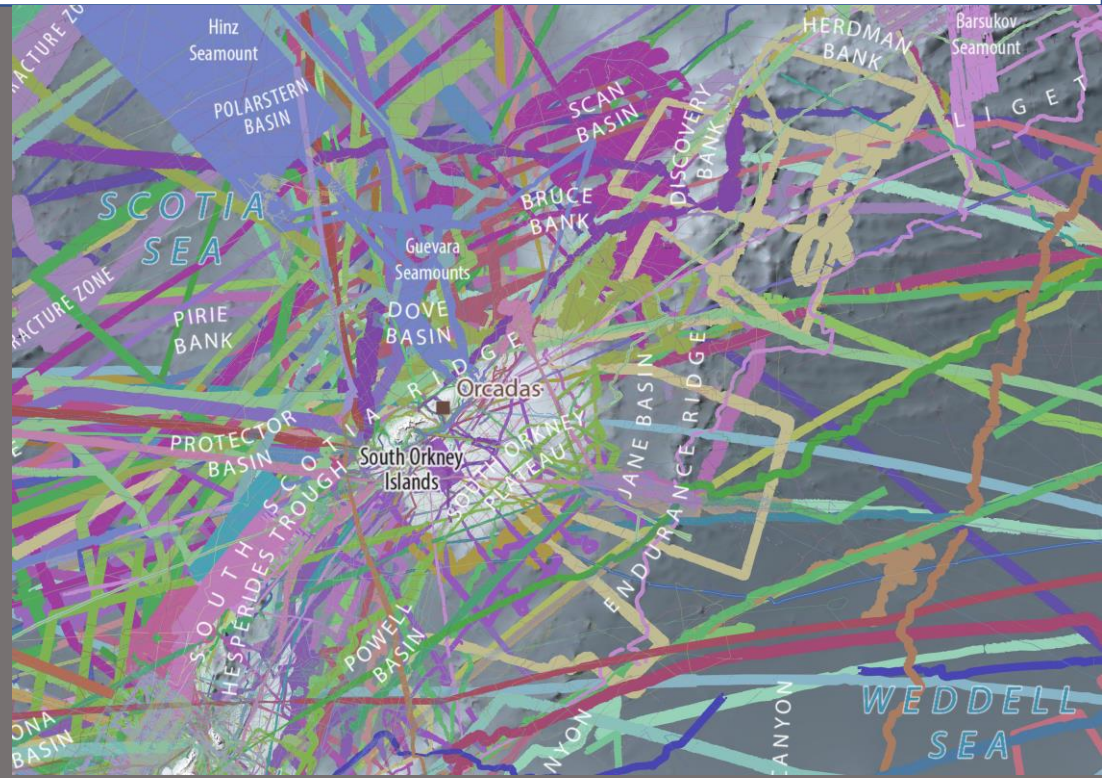
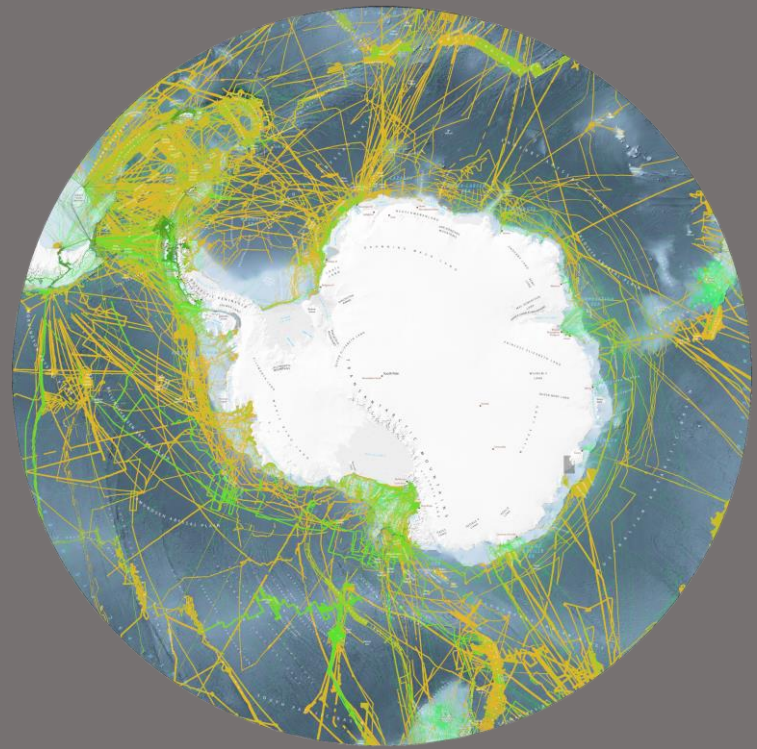
ibcsotools package developed

https://gitlab.awi.de/bathymetry/ibcso/BCSO_TOOLS.git

Next: cruiseprep tool suite for cruise data preparation for seahorse

harmonisation, cruise coverage, projection etc. of new data sets





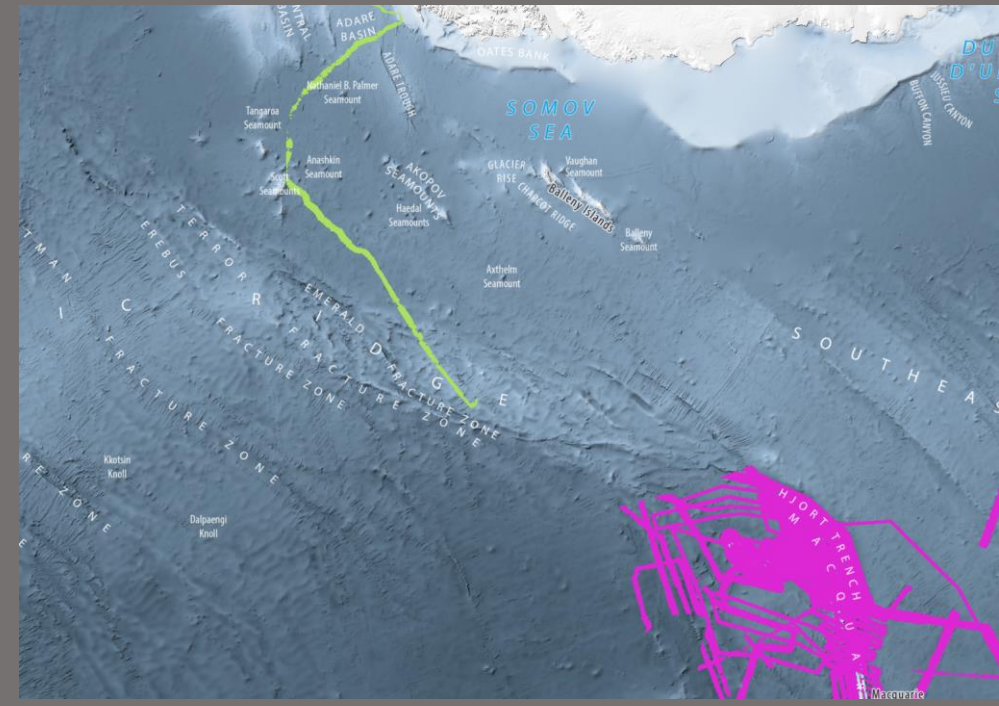
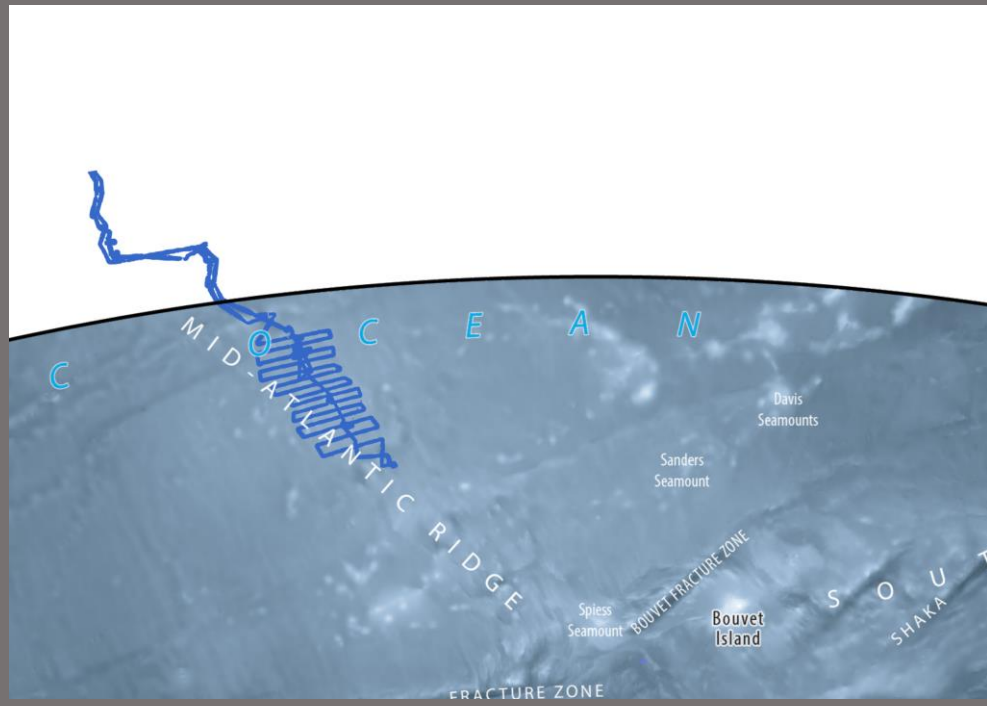
Reimplementation of coverage creation
New algorithm
Dissolve buffered blockmedians and apply simplification
Leads to reduced file sizes per GPKG (276mb)
Runtime for 1509 data sets: ~30 minutes (**previously 5 hrs**)



First tests of 100m resolution grid

Works, but distribution is still not solved (25 times the size of ibcso)

Lot of errors crop up that need to be fixed



Compilations

replace data compilations such as NGA with original data sources
some NGA data sets still remain in the product, but we hope to find the original data someday
apparently cut off (quadrant export?) or mix SBES and MBES data

Multires POC

Most of the IBCSO area is between 3,000 and 5,750 m water depth

IBCSO



multires mask
pink <= -5750
green -5750 - -3000
cyan -3000 - -1750
yellow -1750 - 0

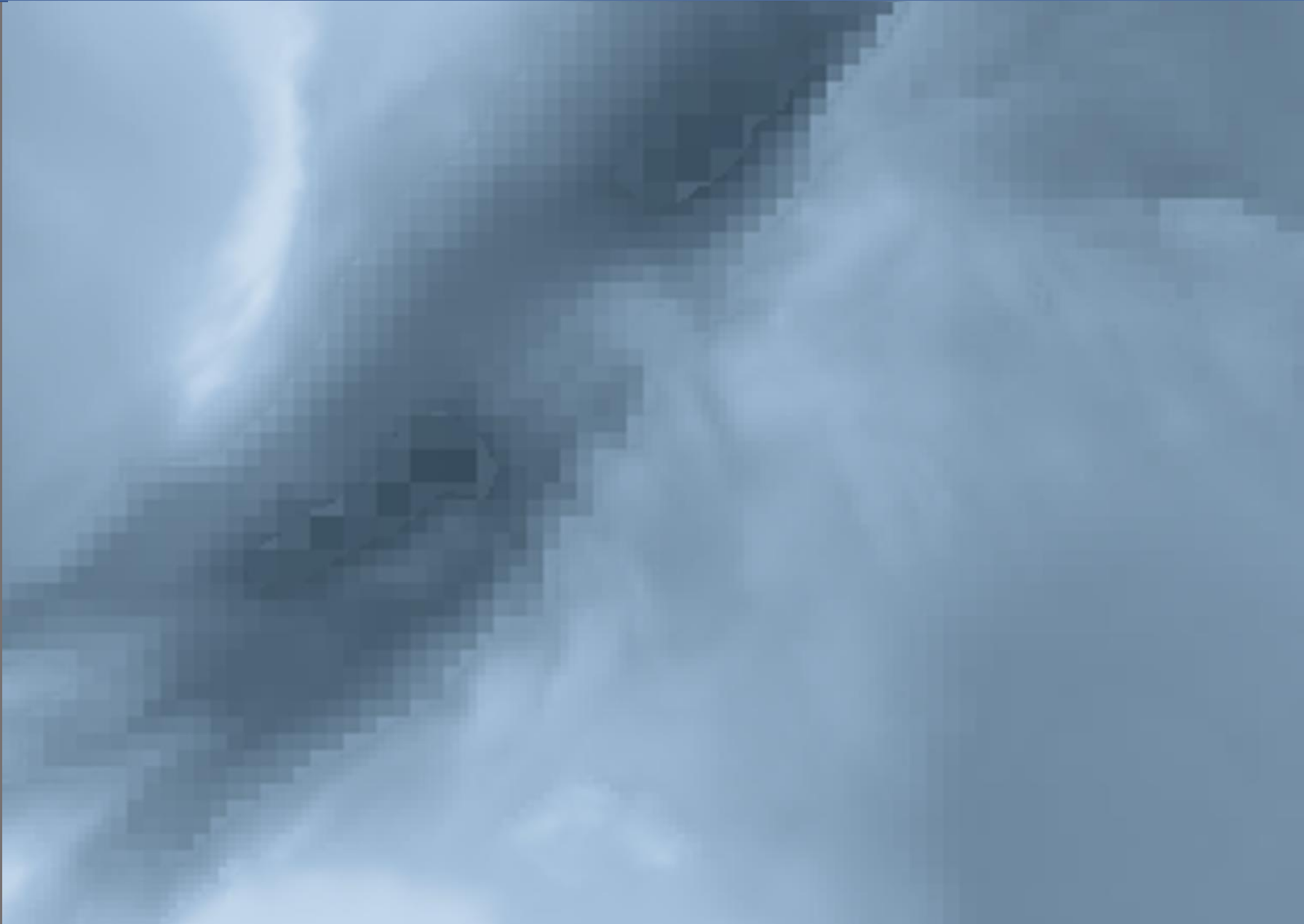


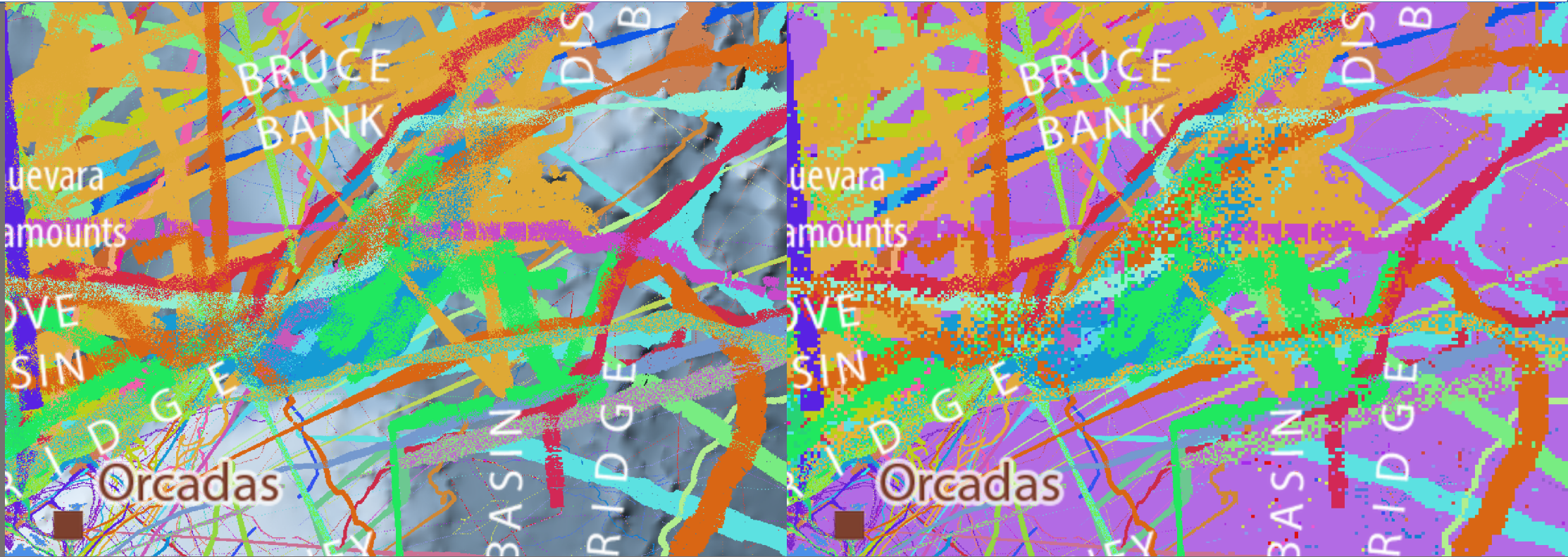
Multires POC

was tested and seems to be in line with the approach implemented by Rez

Uses replication based on our 100x100m grid (shown for 500x500m for visual purposes)

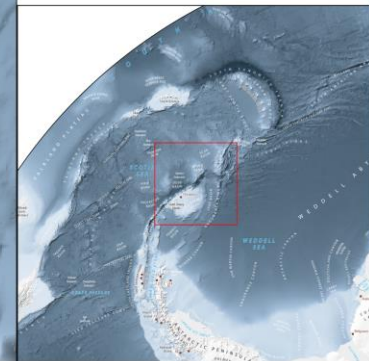
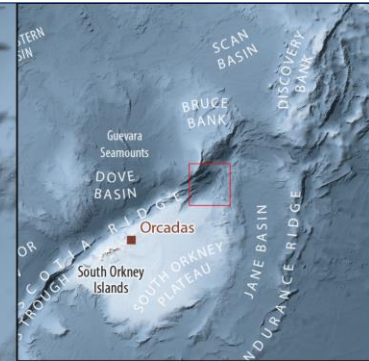
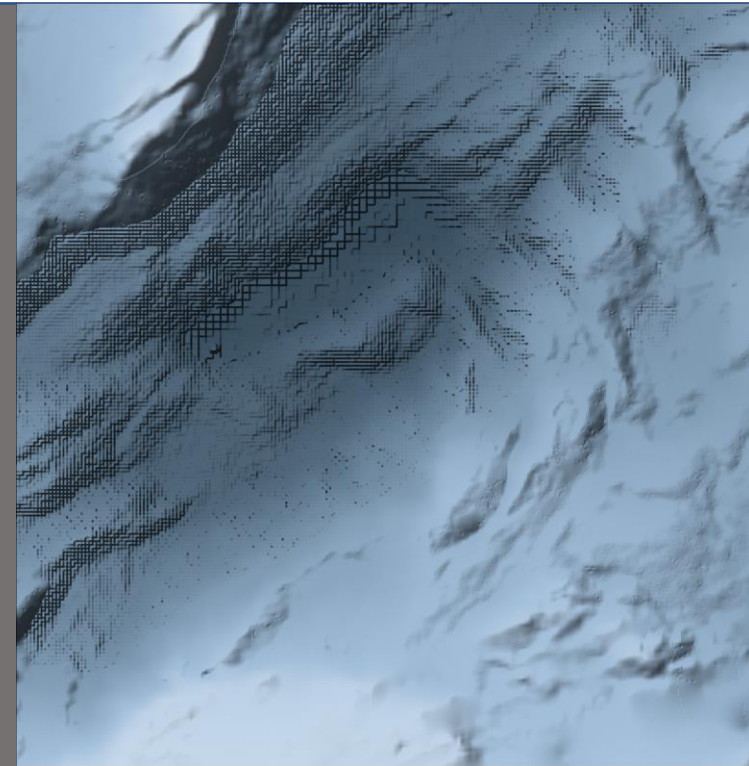
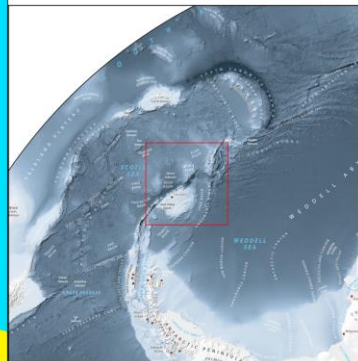
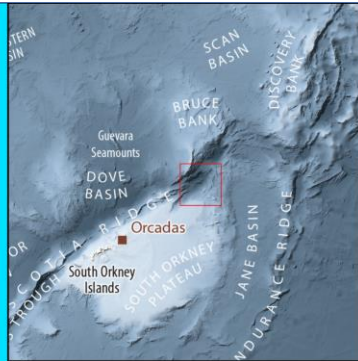
IBCSO





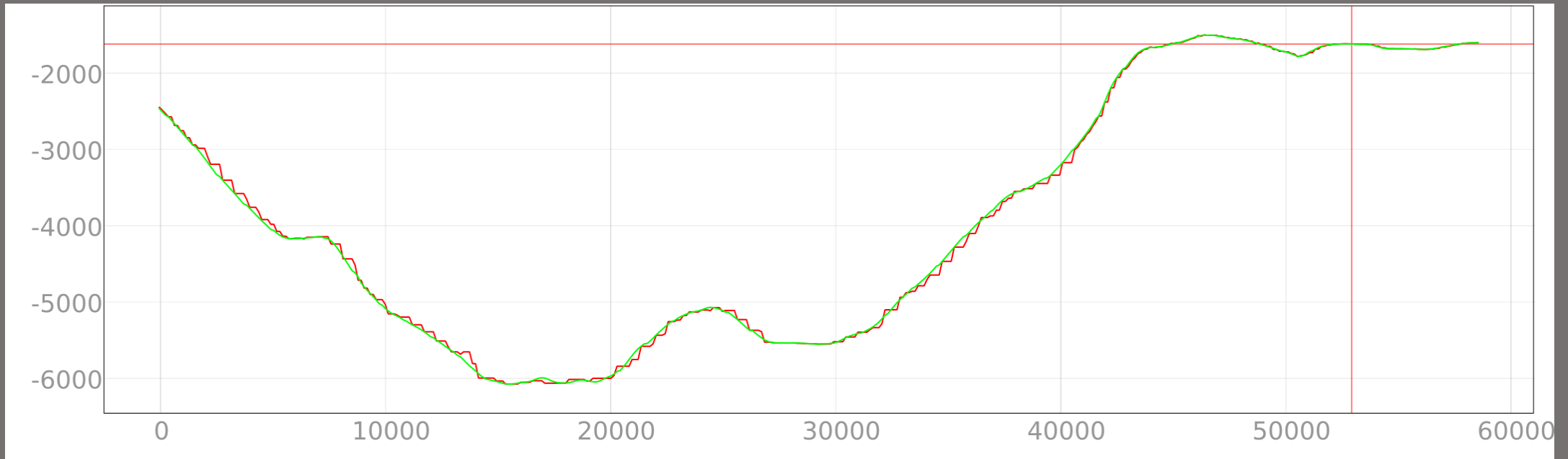
Multires POC

RIDs are forwarded through replication



Multires POC

For the 100x100m product, hillshading highlights the effect

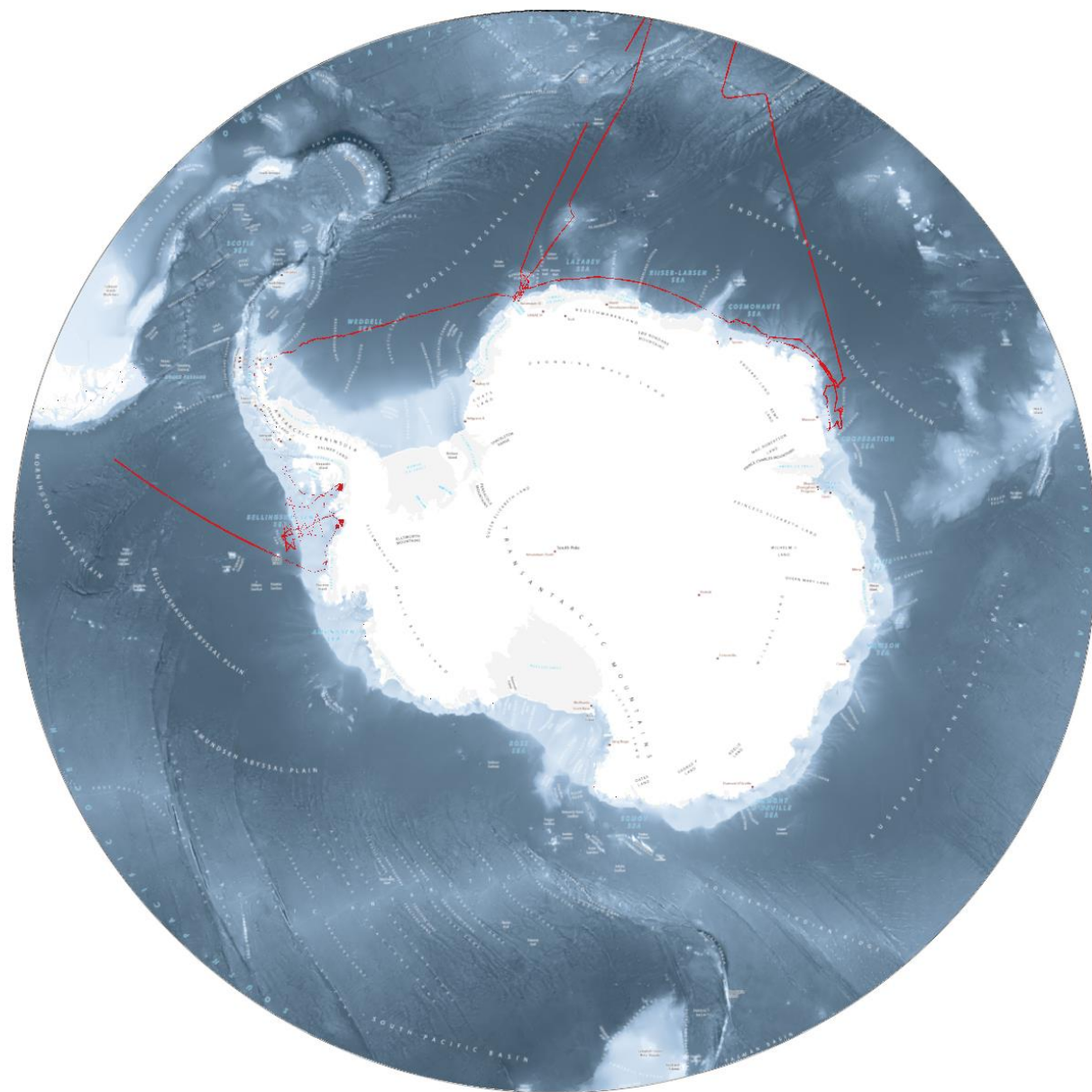


Multires POC

Depth profiles show the dynamic data aggregation (plateaus) caused by multi resolution

New data acquisitions

Few new data, but some major new data sets by Polarstern



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Elephant Island and Continental Shelf

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Thank you for your patience

