

Cruise MSM88/2

Bathymetric mapping of the seafloor - a German contribution to completing the map by 2030

19.12.2019 - 14.01.2020

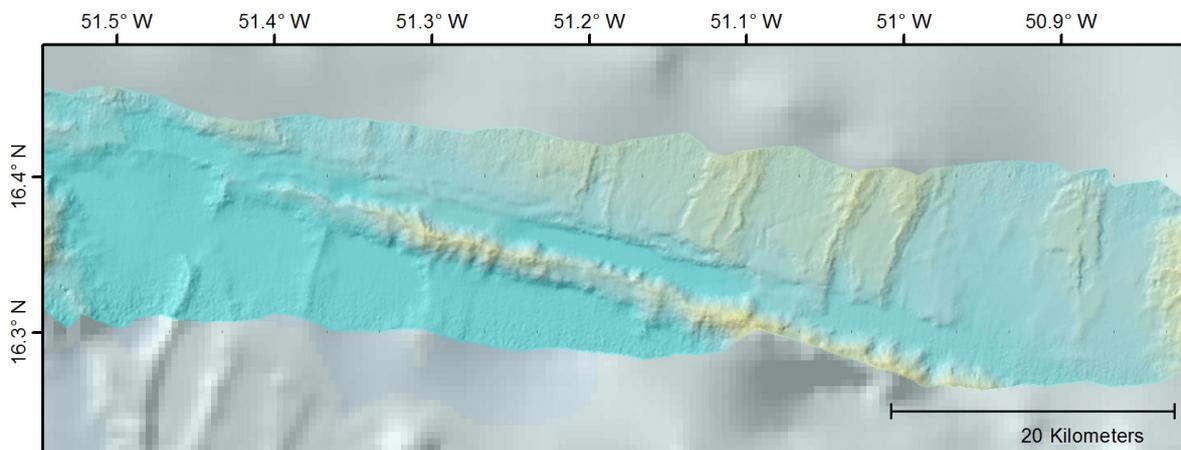
From Mindelo (Cabo Verde) - to Bridgetown (Barbados)



2. Weekly Report, 23.12.2019 - 29.12.2019

The still largely undiscovered world of our ocean floors receives far less attention than it deserves. But perhaps that is not so surprising. When we stand on the beach or view from a sailboat, we need a lot of imagination to fantasize what a diverse and exciting underwater world awaits to be discovered. We are thrilled to see images of the Himalayas or of the moon, which is already fully mapped. We actually know much more about extra-terrestrial landscapes than we do of what moves the continents which we live on. Exploring and viewing our ocean floors will most likely give us the same thrill as the discovery of another planet. A map will give us the opportunity to view extensive mountain ranges, like the Mid-Atlantic Ridge, which one can usually only see on Iceland. Or seamounts that rise thousands of metres from the seabed, plateaus or deep-sea canyons. One will easily be tempted to raise the question "and where do we want to go hiking next summer?"

This week we finished our first transatlantic profile with a length of over 3000 km from the Cape Verdean EEZ (Exclusive Economic Zone) in the east to the EEZ of Guadeloupe (France) in the west. We have passed the Mid-Atlantic Ridge (MAR) with its spectacular topography, which runs north-south through the Atlantic Ocean and is the birthplace of new ocean floor. Mapped features include parallel ridges, which were originally formed at the MAR and which, through plate tectonics, are moved further and further away from it towards the surrounding continents. Perpendicular to these ridges, we find deep valleys, which are also the result of the processes that occur at the MAR, these are referred to as fracture zones. In total, we have mapped more than 65 000 km² of our ocean floors in just two weeks of our journey, which approximately corresponds to the area of Bavaria.



Fracture zone on the first profile in the west Atlantic



Christmas in the hangar

In addition to all the work, the crew also made sure that we do not forget about Christmas. Admittedly, getting into the Christmas spirit on the open ocean with summer temperatures is not necessarily easy. But with a fantastic Christmas menu on the first Christmas Day, also for the vegetarians/vegans among us, and a barbecue on the 2nd Christmas Day, we will all keep this Christmas on board the Maria S. Merian in a special memory.

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