



Volcanism on the Icelandic shelf, connections of the Reykjanes ridge to Iceland.

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Reykjanes Ridge extends from south-west from Iceland where it meets the long extending Mid-Atlantic ridge. What makes Reykjanes Ridge unique from the rest of the MAR is its v shape which it derives from hotspot activity in Iceland. Our understanding on this dynamic surface of the ridge has increased with number of expeditions set out to map and explore many square kilometres of the area in the last decades. In the summer of 2018 a cruise underwent with the goal to find and study geothermal areas. In that cruise geothermal area around Steinahóll was mapped along with deeper parts of the ridge. With this latest cruise a lot data was gathered which will be compared with older data in order to see if any remarkable changes can be observed. With interest on the Steinahóll area where the geothermal activity was located. Therefore the question sought to answer in this project is to answer if any changes are visible and if any to determine how rapid these changes are. To answer these questions data from multi beam measurements is used to compare areas with digital elevations models and also water column data. The digital elevations model can show changes in topography clearly but in order to understand the development of geothermal vents water column data can be used to locate and determine the strength of them. If any remarkable changes are visible between decades that could mean the area is more active than we can observe.