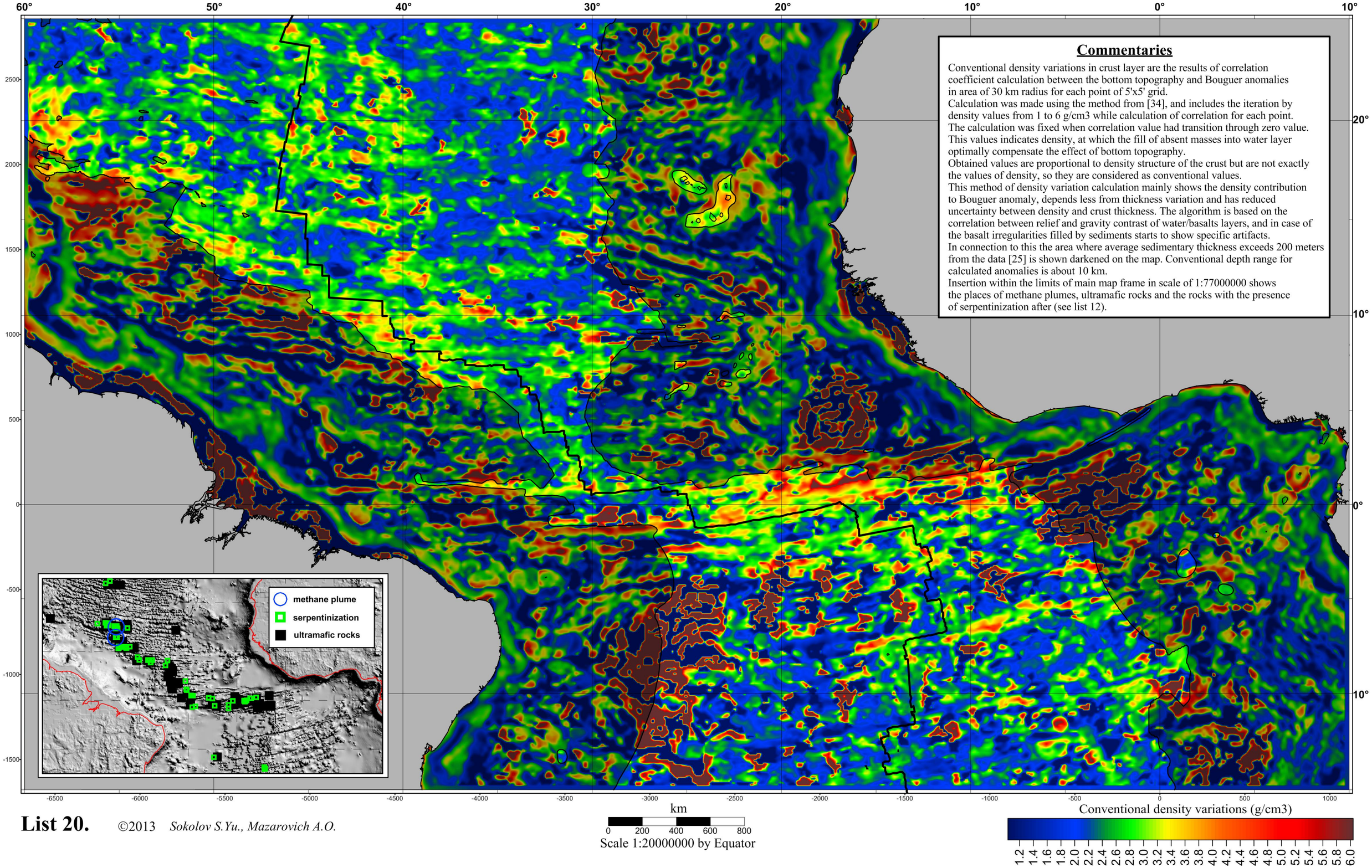
Conventional density variations in crust layer.



Commentaries

Conventional density variations in crust layer are the results of correlation coefficient calculation between the bottom topography and Bouguer anomalies in area of 30 km radius for each point of 5'x5' grid.
Calculation was made using the method from [34], and includes the iteration by density values from 1 to 6 g/cm3 while calculation of correlation for each point.
The calculation was fixed when correlation value had transition through zero value. This values indicates density, at which the fill of absent masses into water layer optimally compensate the effect of bottom topography.
Obtained values are proportional to density structure of the crust but are not exactly the values of density, so they are considered as conventional values.
This method of density variation calculation mainly shows the density contribution to Bouguer anomaly, depends less from thickness variation and has reduced uncertainty between density and crust thickness. The algorithm is based on the correlation between relief and gravity contrast of water/basalts layers, and in case of the basalt irregularities filled by sediments starts to show specific artifacts.
In connection to this the area where average sedimentary thickness exceeds 200 meters from the data [25] is shown darkened on the map. Conventional depth range for calculated anomalies is about 10 km.
Insertion within the limits of main map frame in scale of 1:77000000 shows the places of methane plumes, ultramafic rocks and the rocks with the presence of serpentinization after (see list 12).

List 20.

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