

ALONG-AXIS VARIATIONS OF SUBSIDENCE RATES ON THE MID-ATLANTIC RIDGE FLANKS IN CENTRAL ATLANTIC.

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64 basement profiles were constructed along the flow lines across MAR from the ridge crest to anomaly M25 (154Ma) between the Oceanographer and Fifteen Twenty transforms. The data set includes ETOPO-5 database, maps of the sediment thickness and magnetic lineations. Isostatic corrections and corrections for plume effect were introduced and coefficients in the age/depth equation (Parsons and Sclater, 1977) calculated using the least-squares method. Besides individual profiles, mean coefficients were computed separately for the flanks of the 1st and 2nd order segments of MAR. It appears that three studied 1st order segments of MAR have a different pattern of the flank subsidence rates (SR). The northern segment is asymmetric (higher SR on the western flank), the central segment - symmetric and the southern segment again asymmetric but with the opposite polarity of the SR asymmetry. Similar pattern was revealed for 2nd order segments within the central and southern 1st order segments. In the northern 1st order segment symmetric and asymmetric 2nd order segments also alternate, but the polarity of asymmetry remains the same (higher SR on the western flank). We believe that at least in case of 1st order segments the configuration of MAR depends on the shape of underlying asthenospheric rise inherited from the continental rift stage.