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New data on fault structure of tropical Atlantic.

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There are 22 sharp displacement of rift valley between 25° N and 15° S. At the same time, outside of MAR axial part the number of displacement objects is increased. So, eastward from rift zone it is possible to allocate 47 sublatitudinal troughs or extended ridges, westward - 40. Thus, the amount of passive and active parts of transform faults does not coincide. Active parts of transform faults make from 1.2 up to 20.4 % from total extent of feature. It is possible to allocate three types of faults: single (monofaults), dual faults and systems of faults (multy faulted systems). Besides, the ridge structure is complicated by various breaks or transversive discontinuities. Transform faults in tropical Atlantic could confidently be traced through distance from 4410 kms (Romanche) up to about 700 km (one of faults from San Paolo multy faulted system). Eastern flanks of faults have greater extent. The indicated facts could testify to greater speed of oceanic crust prograding in east direction, i.e. asymmetric spreading. The analysis of faults extents permits to intend, that the faults were mortgaged in different time. Thus on background spreading process within the limits of plates there were the processes, which caused secondary deformations of oceanic crust.

To northwest from Sierra-Leone rise there is the azimuthal unconformity between passive part of Cape Verde fault and faults located southwards. An interesting feature of tropical Atlantic is left-hand slip of flanks on distance about 500 kms from MAR along line, oriented from northwest to southeast.

The marked features of fault flank parts structure in gravity field testify to availability of complex processes, causing to formation of imposed structures and to deformations oceanic crust. This is confirmed by seismic data, aquired in 16 trip of R/V "Academik Nikolai Strakhov ". The sedimentary cover structure analysis and its comparison with data of drilling (Lancelot, Seibold et al...., 1978) has shown, that two stages of deformations emerges in region. First, Paleogene, covering deposits from Cretaceous up to Paleogene, has resulted in essential rise of crust block and erosion of folded deposits. Second, modern, spreads over the lower folded sedimentary stage, and occurs on its discordantly bedded complex of Upper Paleogene and Neogene deposits. As derived from seismic data, this wave of deformation advanced in time from north to south.

The indicated above facts testify to complex structure of oceanic crust in limits of tropical Atlantic and essential changes of geodynamic regimes at opening of this part of Atlantic ocean. The faults could come close to each other, suffer tectonic convergence, miss, forming thus complex structural performance. In many faults the interruption of their continuity and bends are established.

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