



## **Tides as drivers of plates and criticism of mantle convection**

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Forces moving plates are of two kinds: Force moving plates to the north and force moving plates to the west. They are both, by their origin, related to tidal forces but they act in quite different way. The northward force acts by its center in meridian, the westward force acts in direction of geographic parallels. Tidal forces of semidiurnal and diurnal periods cannot move plates because triggering of earthquakes by the stress of these amplitudes gives statistically insignificant results confirmed by many reports for more than 100 years. However the tidal forces acting on 10 km Earth's rotation bulges and the periodic Earth's deformations resulting in Earth's rotation variations give strong forces energetically equivalent to energy of large earthquakes. Oceanic lithosphere older than 180 M.Y. drops down to the mantle by gravity or is liquidated being overridden beneath continent. At that movement the released space facilitates the plate movement by tides. Hotspots firmly anchored in mantle show by tracks an exact movement of plates. Mantle convection is disregarded because it contradicts to existence of mid-ocean ridges triple junctions. Not Polfluchtkraft but Äquatorkraft force the tides create, which can move the large continent (for example Gondwana) far from equator as far as the pole, where after decay the Antarctica remains being out of tidal forces actions.