The Pacific ocean mobile belt (POMB) – is a long developing global structure of the Earth. It is convergent border of Pacific (POP) and Euroasian (EAP) lithospheric plates. Characteristics of POMB is its asymmetric structure in cross section – general verdgency of tectonic structures to the Pacific ocean, that is connected to situation of the belt in a zone of joint of a continental core of the Indo-Atlantic segment and an oceanic core of a Pacific segment of the Earth. POMB, which elements are the regularly located structures of compression, stretching, shearing, transtension and transpression. It is possible to consider POMB as a global zone of shear deformations with relative lateral moving of POP and EAP. At different stages of the development POMB is revealed mark-changing character of horizontal movements. It is expressed by change of left-hand displacement along belts by right-hand ones, accompanied by change of mark of movements in structures of compression and stretching. The changes of structure’s kinematics of POMB reflect changes of the stress-deformed conditions of region at change of the direction of a relative lateral displacement of POP and EAP. These processes explained from the positions lithospheric plate tectonics as just reorganization of their movement are probably also caused by changes of a rotational mode of the Earth, both changes of speed of rotation of the Earth around its axis and displacements of the last. On a background of latitudinal compression connected with convergence of POP and EAP, in such conditions the NW margin of POMB is characterized as right-hand transpression, here is shown meridional compression connected with centrifugal (pole-fugal) forces. The increase of speed of rotation of the Earth causes strengthening of meridional compression, thus along a northwest margin of POMB there are mainly left-hand displacement. At reduction of speed of Earth’s rotation the meridional compression weakens and even can be replaced latitudinal one, at which the right-hand displacement will be characteristic for this part of POMB. The distribution of modern volcanic zones of Kamchatka specifies realization along submeridional (NNW) structures dextral deformation, that specifies conditions of modern submeridional (NNE) compression.

Some features of a structure and history of development of a northwest margin of POMB – progressive advance of an active zone and rejuvenation of tectonic structures on East – South-East towards central part of the Pacific ocean - allow to assume a presence of large dextral-involuting vortical structure, which center is probably the Indochina-Marian block.