

Upper geomagnetic basement depths of 'South-Hachijo Bank', located between Hachijoshima Is. and Aogashima Is.

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South-Hachijo Bank(SHB) with depression on the top is situated southern end of insular shelf of the Hachijoshima Island. SHB was considered to be submarine caldera. Many research works are reported on the features of geomagnetic anomalies at submarine caldera discovered in northern part of the Izu-Ogasawara Arc. However, they did not mention about geomagnetic structures causing geomagnetic anomalies. The authors report on the upper geomagnetic basement depths of SHC estimated from total geomagnetic anomalies.

South-Hchijo Bank (SHB) with depression on the top is situated about 40km south from Hachijoshima Island (HI) and located in southern end of insular shelf of HI. SHB was considered to be submarine caldera. Many research works are reported on the features of geomagnetic anomalies at submarine caldera discovered in northern part of the Izu-Ogasawara Arc. However, they did not mention about geomagnetic structures causing geomagnetic anomalies. The authors report on the upper geomagnetic basement depths of SHC estimated from total geomagnetic anomalies.

Central area of the SHB is covered with weak negative anomalies. Positive anomalies exist in the area from south part of the top to southeast flank of the SHB. Distribution of geomagnetic anomalies shows dipole type feature typically. It is estimated that magnetic body under the SHB is magnetized to same direction as same as that of present earth's field. Upper geomagnetic basement exists near to sea floor between south part of the top and southeast flank of the SHB. Geomagnetic basement between depression on the top and northern flank of SHB is covered by thick non-magnetic material.