

## V. MAGNETIC ANOMALY

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Geomagnetic survey was carried out over the area of GH77-1 cruise by Geometrics Proton precession magnetometer. Total magnetic intensity was measured and anomaly was calculated by comparing with IGRF (1975), meaning the international geomagnetic reference field. All profiles of magnetic anomaly were compiled into a chart shown in Fig. V-1.

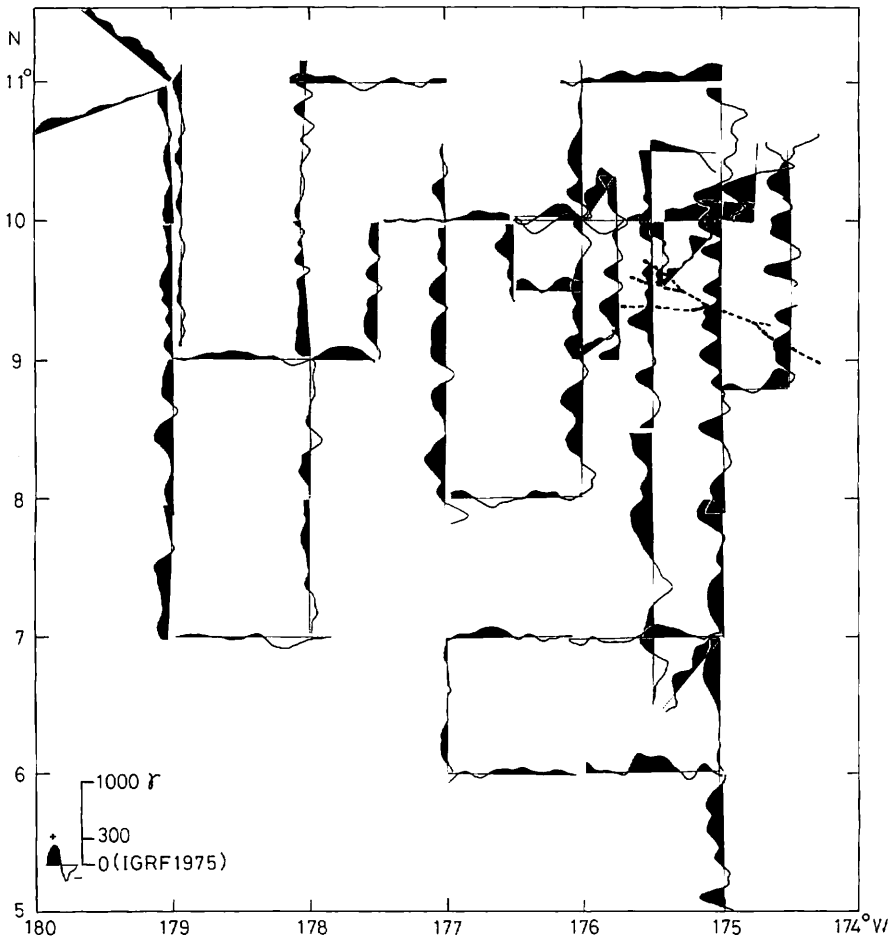


Fig. V-1 Profiles of magnetic anomaly. The values are the results from total magnetic intensity and IGRF values. Black part shows positive value and blank part shows negative value. The dotted lines show the trend of the Magellan trough.

Lineated pattern of magnetic anomaly appears in the northeastern corner, representing the westward extension of the fan shape lineation called Magellan Lineation in the GH76-1 area (TAMAKI *et al.*, 1978), but the amplitude of anomaly is smaller than that of GH76-1 area and the pattern of fan shape lineation vanishes between the longitudes of 176°W and 175°30'W. This lineated pattern coincides well with the geographical features and the center of the fan shape lineation coincides with the Magellan trough which was formerly tentatively called as GH76-1 trough. Furthermore the Magellan trough branches into three troughs around the part where the pattern of fan shape lineation vanishes. Other lineated pattern occurs at the center of this area, but this is only one line and does not show any relations to the surroundings. Other anomalies are all small and do not show any lineations. Anomalies in the northwest part show especially small amplitude and peak to peak values are approximately 100γ. It is difficult to draw any more information only from these small amount of data except the fact that the rocks which bear the magnetization may have been weakly magnetized, and we need more detailed investigation for that.

#### Reference

- TAMAKI, K., JOSHIMA, M., MURAKAMI, F., and MIZUNO, A. (1978) Remnant Mesozoic spreading center in the Central Pacific. *Abstracts of papers—International Geodynamics Conference, March, 1978, Tokyo*, p. 158.