

## II. FREE AIR GRAVITY ANOMALIES IN THE AREA OFF SOUTHWESTERN JAPAN

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Free air gravity anomalies are shown in Fig. II-1. The trend of the gravity anomalies extend in a NE direction from Omaezaki to Kumano-sea, along a NNW direction in the Muroto Basin, along a NE direction in the Tosa Terrace area and along a NNE direction off Miyazaki parallel to the Ryukyu Arc. The minimum gravity anomalies over the deep-sea terraces are  $-80$  mgal in the vicinity of the Kumano Terrace,  $0$  mgal over the Tosa Terrace, to less than  $-100$  mgal over the continental shelf off Miyazaki. These anomalies correspond to the depth of the acoustic basement. In the Nankai Trough, the amplitude of negative anomalies is small off Kumano-sea and large in the area off Suruga Bay and off Miyazaki. In the Zenisu region, gravity anomalies are positive and there are also high-amplitude magnetic anomalies related to bottom topography, which suggests that the ridge may be composed of igneous rocks such as the andesite dredged at St. 361.

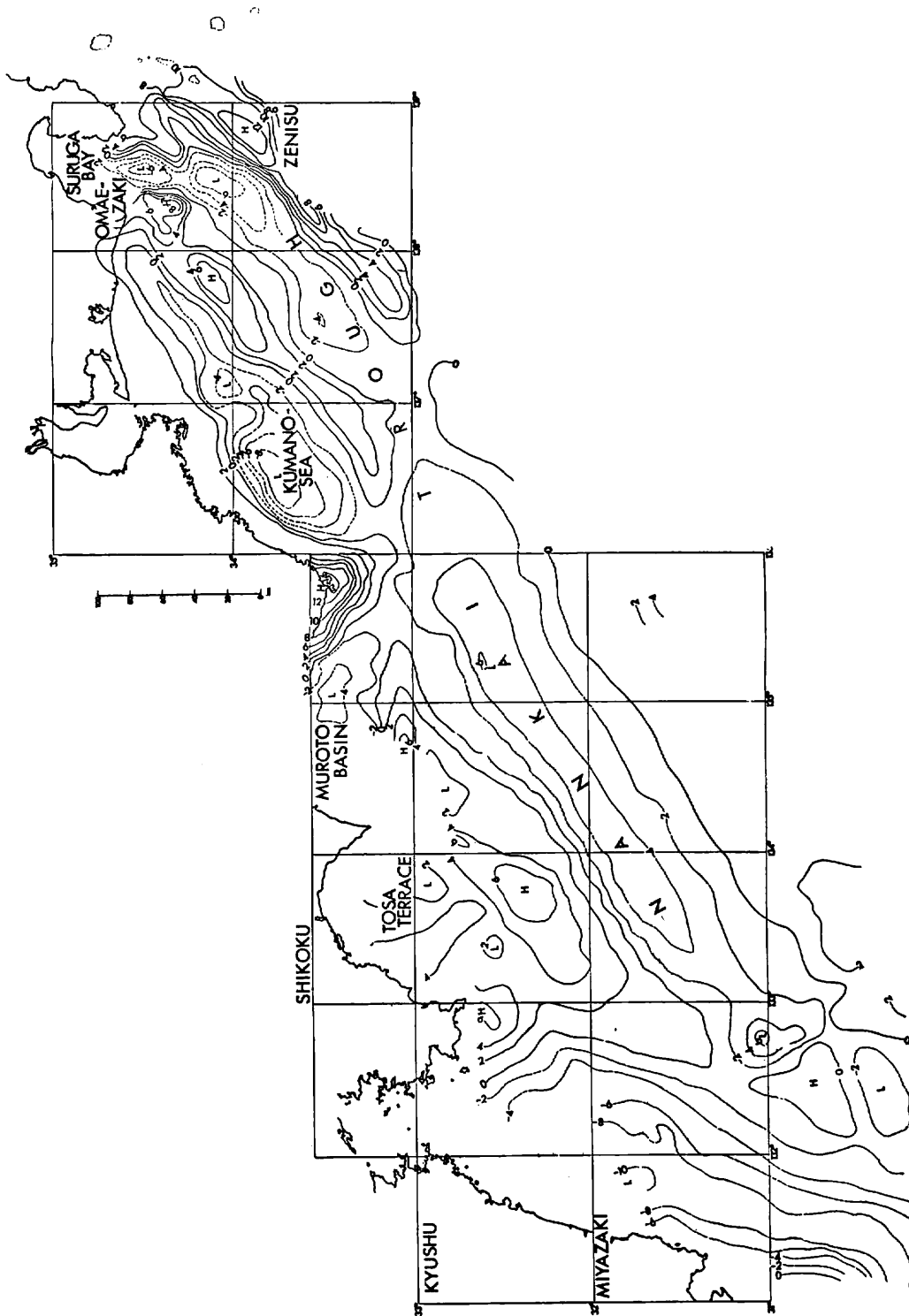


Fig. II-1 Free air gravity anomalies in the area off southwestern Japan.