

On deep-tow magnetic anomaly observed near ODP Site 795 in the eastern margin of Japan Basin

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We conducted a deep-tow magnetic survey of the northeastern margin of the Japan Basin during the Hakurei-maru GH96 cruise in 1996. In this survey, an extremely large deep-tow magnetic anomaly (amplitude: 775 nT; wavelength: 8 km) was successfully detected, while there was no obvious anomaly on the sea-surface. We presented this result and a primary model for the anomaly in the last JEPS meeting. Here we have revised the model in consideration of both result of ODP Site 795 and existing seismic reflection data. It shows that the anomaly could be explained by the following two models: a) a layer with positive magnetization including a conical body; b) a layer with variable magnetization including negative or weak positive magnetization causing the negative deep-tow magnetic anomaly.