

## A revised Mesozoic isochron chart of the northwestern Pacific Ocean

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A new Mesozoic isochron chart of the northwestern Pacific Ocean has been completed by utilizing all the currently available data collected after the previous works (Nakanishi et al., 1989; 1992). Our chart provides the whole view of the Mesozoic magnetic anomaly lineations in the northwestern Pacific Ocean. The areas where magnetic lineations are newly identified or revised are as follows,

1. Central Pacific Basin (Nakanishi and Winterer, 1998)
2. Shatsky Rise (Nakanishi et al., 1999a)
3. Southwest of Shatsky Rise (Nakanishi et al., 1999b)
4. Ontong Java Plateau (Nakanishi and Winterer, 1996)
5. Nova-Canton Trough (Nakanishi and Winterer, 1996)
6. Japan and Izu-Ogasawara trenches (Nakanishi et al., 1998; Nakanishi and Kato, 2003)

In the Central Pacific Basin, an abandoned, NE trending spreading ridge is evident on the satellite gravity map and is confirmed in bathymetric and magnetic data. The identification of magnetic anomaly lineations flanking the abandoned ridge suggests that between chrons M21 (147 Ma) and M14 (135 Ma) it was the plate boundary between the Pacific plate and a microplate. Revision of magnetic anomaly lineations map around Shatsky Rise exposed that magnetic anomaly lineations are traceable through low parts of the rise between volcanic massifs, indicating nearly normal lithosphere, and between large volcanic edifices. Many lineations form bights near the rise axis and show former locations of the Pacific-Izanagi-Farallon triple junction. They indicate that the junction was in a ridge-ridge-ridge configuration and closely followed the rise axis from chron M20 (146 Ma) to chron M4 (127 Ma).

Detailed magnetic survey in the southern Japan Trench confirmed the existence of magnetic anomaly lineations that have a different strike from that of the nearby magnetic anomaly lineations. The vector analysis of magnetic anomalies near the Izu-Ogasawara Trench revealed that magnetic anomaly lineations in the area are parallel to the nearby magnetic anomaly lineations.