

Side scan sonar images of Suiyo seamount obtained by the WADATSUMI system

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In December 2001, a side scan sonar survey using the R/V Kairei was conducted in the Suiyo seamount, south off Honshu, Japan. The objective of the experiment is to obtain the high resolution side scan sonar data of Suiyo seamount.

The WADATSUMI deep towed high resolution side scan sonar system consists of WADATSUMI towfish, winch system and onboard electronics. Using acoustic energy reflected from the seafloor in continuous swaths of up to 1,024 meters wide, the system delivers simultaneous real-time side scan intensity images and bathymetric maps. The SSBL towfish positioning system was used during cruise. The signals sent by the hull mounted transmitter were received by the towfish transponder, and sent back to the hull mounted hydrophones. They were processed in the onboard acoustic navigation system to determine the range, bearing and elevation to the ship.

Side scan sonar data are currently being processed on shore using towfish position data and preliminary results will be presented.