CONTOURITE DEPOSIT IN WESTERN SOUTH ATLANTIC.

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Bottom currents play an important role in the transport and deposition of fine sediments, generating bedforms with variable geometries and different scales. Mudwaves are quasi-sinusoidal, large-scale bedforms, found in many oceanic basins around the world. These features frequently are developed in the flanks of large contourite deposits along the continental rise and near deep-sea channels.A large contourite was recently observed south of São Paulo Plateau, between the latitudes 28o and 31o S and longitudes 43o and 47o W in water depths of 2000 to 4000 meters. This region is part of a small basin limited to the East by the Rio Grande Rise and to the North by the São Paulo Ridge. In this area, the oceanic circulation is dominated by the Antarctic Intermediate Water (800 - 1.000 m), the North Atlantic Deep Water (2.000 - 3.000 m) and by the Antarctic Bottom Water (3.000 - 5.000 m). The contourite deposit has a total thickness of up to 75 m and extends for more than 60 km, showing a large field of mudwaves in water depths greater than 3.600 m. These features are stationary mudwaves, with wavelengths of up to 10 km and heigths of up to 40 m showing superimposed secondary mudwaves with average lenghts of 3 km and heigths of 15 m. The origin and development of these features are associated with the Antarctic Bottom Water activity.