Deep-Tow three component geomagnetic observation at the axis of the South East Pacific Rise (18S)

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A newly developed Deep-Tow Three-Component Magnetometer (DTCM) was first used for a geomagnetic investigation of the East Pacific Rise around 18S aboard the R/V ATLANTIS in Sep. 1998. Six detailed traverse surveys were conducted at 17'30S, while four at 18'30S. These observations were carried over at about 200m above the seafloor. The purpose of this survey is to estimate detailed geomagnetic structure of oceanic crust related to crustal accretion process at mid-ocean ridge, which is allowed by the combination of deep-tow and sea level measurements, additionally, by accurate and efficient observational instruments like this DTCM system mounting fluxgate magnetometer and attitude sensor. We will report on the observational data and some preliminary results focusing on ridge activity.