



Gulf of Cadiz airborne magnetic survey

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The aeromagnetic survey of the Gulf of Cadiz was carried out by the IGN during 2005. The main purpose of it was to have a better knowledge of this area, one of the most important tectonic ones in the Iberian region. The survey was flown at 700 meters above sea level, with a flight tie-line spacing of 10 and 40 kilometres respectively, covering approximately 16000 line kilometres. The Magnetic Residual Field was obtained after filtering, processing and levelling, resting the corresponding IGRF.

A preliminary interpretation of these data at flight altitude shows structures already known and clearly appears a big alienation going from Gorringes Bank to enter in Northern Morocco, separating zones of very different magnetic textures. Magnetic continuation of the main structures has been achieved by joining these data with the Iberian Peninsula and Alboran Sea ones, at 3000meters altitude. This union allows having a better global knowledge of the external Betics, the Gibraltar arc and the extension of the Alboran Sea. The main alienations and discontinuities as well as some other structures, are drawn, showing the important tectonic processes that have taken place in this area.