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Geomagnetic field observations in Antarctica at the geomagnetic observatories at Terra Nova Bay and DomeC

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During the 1986-87 austral summer a geomagnetic observatory was installed at the Italian Antarctic Base Mario Zucchelli Station (TNB, geographic coordinates: 74.7S, 164.1E; corrected geomagnetic coordinates: 80.0S, 307.7E; magnetic local time MLT=UT-8). In the first years the measurements of the geomagnetic field were carried out only during summer expeditions. Since 1991 the recording was implemented with an automatic acquisition system operating through the year. More recently, after two short test surveys, from October 2004 a geomagnetic Italo-French observatory was installed on the Antarctic plateau (DMC), very close to the geomagnetic pole (geographic coordinates: 75.1S, 123.4E; corrected geomagnetic coordinates: 88.8S, 55.6E; magnetic local time MLT=UT-1). In this work we will present the most relevant results obtained from TNB observations coming from almost twenty years of observations and also the preliminary results obtained from the analysis of the first year of data from DMC.