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Long-term network for permafrost monitoring in the South Shetlands (Maritime Antarctic). An international programme developed in the framework of the International Polar Year 2007-2008

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The Antarctic Peninsula is one of the regions in the World with a stronger climate warming trend, with values of ca. +2.5žC of warming in mean annual air temperatures since 1950. While glaciers and ice-shelves are being monitored to evaluate the climate change effect, permafrost has been largely neglected. In order to develop permafrost research in the Antarctic, two core-projects of the International Polar Year 2007-08 have been implemented: Antarctic and Sub-Antarctic Permafrost, Soils and Periglacial Environments (ANTPAS-SCAR/IPA) and Permafrost Observatory Project - A Contribution to the Thermal State of Permafrost (TSP - IPA). In the framework of these projects, the research groups of the Universities of Lisbon (Portugal), Alcalá de Henares (Spain), Zurich (Switzerland) and Sofia (Bulgaria) in collaboration with the Spanish and Bulgarian Antarctic Programmes are developed an effort for the installation of a long-term network of boreholes for monitoring permafrost and active layer temperatures in Livingston and Deception Islands (South Shetlands, Antarctic). The network includes 4 shallow boreholes for monitoring the active layer and permafrost, and 4 CALM-S sites for active layer monitoring. In the campaign of 2007-08 the drilling of 2 new 25m boreholes is planned, as well as the drilling of several new 5 to 8m boreholes. In this poster we expect to present the results from this campaign,

as well as our future plans, which intend to include sites in the Antarctic Peninsula.