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The Livingston Island Geomagnetic and Ionospheric Observatory

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The Ebre Observatory Institute manages a geophysical observatory installed at the Spanish Antarctic Station (SAS) Juan Carlos I. It was set up in 1995 and it has been updated yearly by our team throughout several projects carried out since then. Nowadays, it hosts a magnetic station providing 1-second data of the 3 components (X, Y, Z) and the total force (F) during the entire year, and an ionospheric station providing vertical and oblique data during austral summer. This observatory has provided long data series of high scientific value from this remote region of the Earth. They have been used to improve the knowledge of the climate and weather behavior of the geomagnetic field and ionosphere in the area, and to model and expand the capacity of data transmission. This contribution aims to present a brief review of the instruments installed at SAS, the research results obtained from their data, and the developing activities under the current project. Finally, future perspectives are outlined with regard to adapting our geophysical observatory to the evolving needs of observatory practice.