

NINETEENTH CENTURY SELF-RECORDING PHOTOGRAPHIC METEOROLOGICAL INSTRUMENTS AT THE OBSERVATORY INFANTE D. LUIZ

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Abstract

In the second half of the nineteenth century the Infante D. Luiz Observatory of Lisbon was inserted in an international network of scientific institutions that worked in meteorological and magnetic studies. This internationalization of the science of meteorology led the Observatory to acquire photographic self-recording instruments like electrographs, baropsycographs and magnetographs. These instruments were calibrated at the Kew Observatory as there were privileged scientific relations between the Lisbon Observatory scientists Fradesso da Silveira and Brito Capello and the director of the Kew Observatory Balfour Stewart. Further important cooperation was also established with William Thomson (Lord Kelvin) and Mascart, among others.

Around 1870 the international network of meteorological observatories engaged in studying the relations between magnetic and solar activity. At the Lisbon Observatory nearly 400 solar photographs were done using a photoheliograph and a chrono-goniometer designed by Brito Capello.

In this research work we will present the studies done on the instruments and the photographic data as well as on the contributions of the international and national established cooperation, namely with the Photographic Section of the Portuguese Geographical Institute.