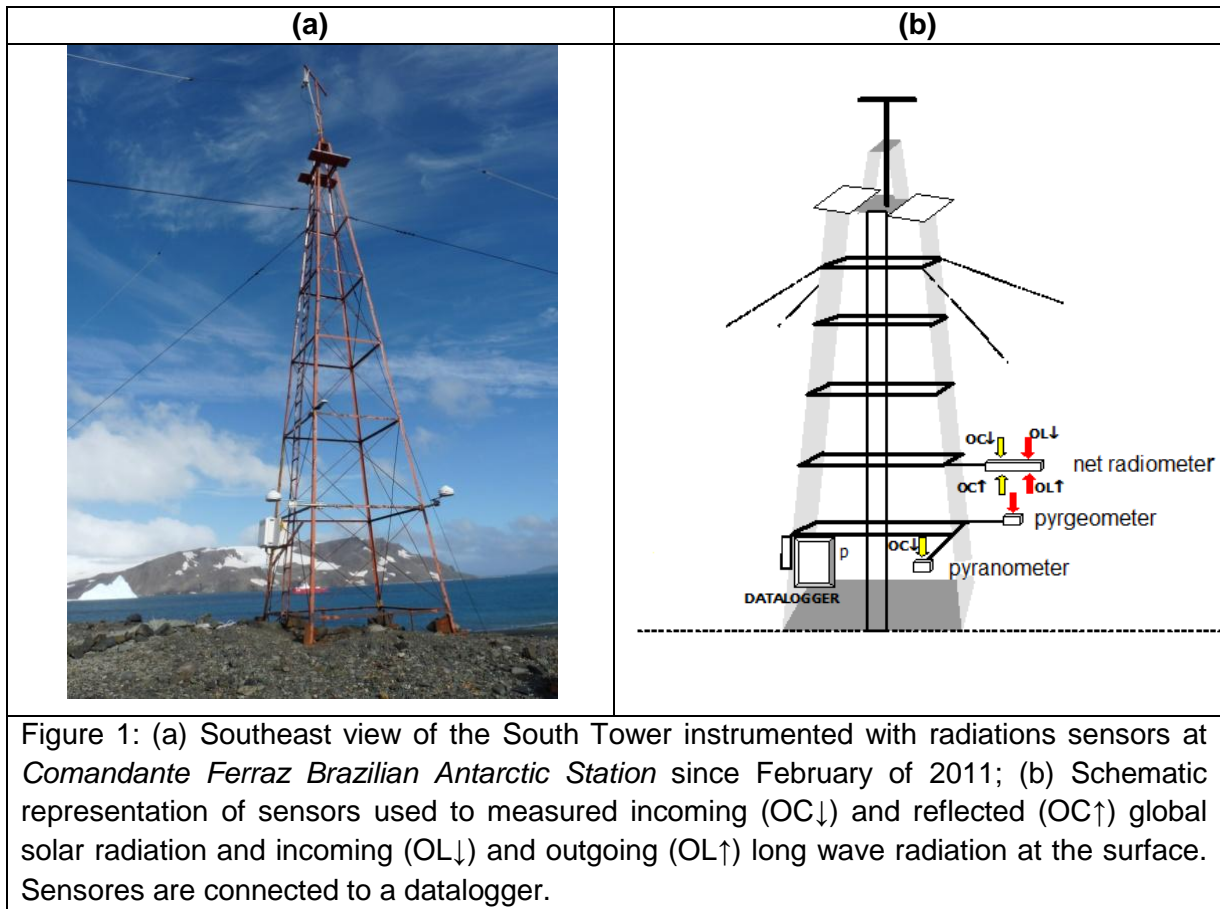


## OBSERVATIONAL INVESTIGATION OF THE RADIATION BALANCE AT THE BRAZILIAN ANTARTIC STATION – PRELIMINARY RESULTS

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Measuring all components of the radiation balance at the surface in Antarctic is important for diagnostic and prognostic studies of climate change and for environmental monitoring. The primary objective of this investigation is to characterize the seasonal and diurnal variation of the radiation balance components at the surface using *in situ* observation at the *Comandante Ferraz Brazilian Antarctic Station (EACF)*, on King George Island (62°05'S, 58°23'W). It will be described in this work the preliminary results obtained from the observations of incoming (OC↓) and reflected (OC↑) global solar radiation and incoming (OL↓) and outgoing (OL↑) long wave radiation at the surface carried out continuously every 15 seconds, between February and July 2011. These measurements were gathered using a pyranometer (model CPM11), pyrgeometer (model CGR3) and a net radiometer (model CNR4) from Kipp-Zonnen. These radiometers were set in the 12 meter tower (South Tower) in the EACF (Fig. 1a), at 1.85 m (CPM11, CG3) and 3.4 m (CNR4) from the surface (Fig. 1b). This work is running within the framework of the “*Instituto Nacional de Ciência e Tecnologia - Antártico de Pesquisas Ambientais (INCT-APA)*”.



Agência financiadora: CNPq - 101614/2010-1 / CNPq – INCT-APA.