



New criterion to select the South Atlantic Convergence Zone

A. Simone Erotildes Teleginski Ferraz (1), B. Tercio Ambrizzi (2) and C. Rosmeri Porfirio da Rocha(2)

1 – Federal University of Santa Maria – Department of Physics – Brazil
simonefe@smail.ufsm.br, 2 – University of São Paulo – Department of Atmospheric Sciences
– Brazil – ambrizzi@model.iag.usp.br, rosmerir@model.iag.usp.br

The South Atlantic Convergence Zone (SACZ) is a climatic aspect of the intraseasonal scale that produces intense precipitation in Southeast Brazil during summer Austral. The SACZ is characterized for a high variability convective region located in eastern Cordilheiras of the Andes with northeast-southeast orientation. In addition extend Southeast Amazon until South Atlantic (Zhou and Lau 1998; Liebmann et al, 1999; Carvalho et al, 2004). The many works that studied SACZ (Carvalho, Jones e Liebmann, 2004; Jones et al, 2004, for example) long wave radiation (ROL), is used which proxy of precipitation. In the first moment, it describes the position of event; however the precipitation is more adequate, principally in the used data series obtain of the climatic models.

A study of the characterization of the South Atlantic Convergence Zone (SACZ) is presented. It was determined 48 events of ZCAS between 1995 to 2005 during the November to March period. Based on rainfall data, a new criterion was defined in order to select the SACZ events and their results were compared with the previous events. The results indicated that the new criterion did a good job in representing the SACZ. For this reason, um test with climatic model data series (REGCM3 Model, Giorgi et al., 1993) is presented.