

SYNOPTIC ANALYSIS OF SEVERE STORM OBSERVED ON THE NIGHT OF NEW YEAR'S EVE IN THE SOUTH OF BRAZIL

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The aim of this study was to analyze a storm that occurred on the night of New Year's Eve 2013 in the state of Rio Grande do Sul. It is known that the southern region of Brazil is constantly affected by several weather events, causing heavy rainfall in the surface, many sometimes accompanied by strong gusts of wind, hail, lightning that cause great harm to society. This strong storm hit several regions of the state and the population caused various disorders, including during the feast of the turn. The eve of New Year's Eve was elevated temperatures due to the transport of warm and moist air in the lower levels of the atmosphere from the north of Argentina and the approach of a cold front by Uruguay.

For synoptic analysis of the event images were used geostationary satellite GOES series, available in the database of the Center for Weather Forecasting and Climate Studies (CPTEC / INPE). Images of Weather Radar Canguçu, provided by Network Command's Aeronautical Meteorology (REDEMET), was also used to chart the surface of the day 01/01/2013 00Z.

The results showed that the frontal system reached the southern Rio Grande do Sul by the west, reaching the towns of Quaraí, Santana do Livramento and Uruguaiana with strong temporal and beautiful images of gust fronts. Soon, the cold front moved quickly to the north reaching other parts of the state. In Pelotas and Rio Grande and other towns of the south and the campaign frontal system arrived about 22:00 UTC on day 31/12/2012, and strong storm that marred the celebrations of year.