

## HISTORICAL COLD SNAP FREEZES SOUTH AMERICA

## By Alexandre Aguiar / MetSul Weather Center

A brutal and historical cold snap has so far caused 80 deaths in South America, according to international news agencies. Temperatures have been much below normal for over a week in vast areas of the continent. In Chile, the Aysen region was affected early last week by the worst snowstorm in 30 year. The snow accumulation reached 5 feet in Balmaceda and the Army was called to rescue people trapped by the snow.





In Argentina, the snow in the region of Mendoza, famous for its winery, was described by local meteorologists as the heaviest in a decade. The temperature in the morning of July  $16^{th}$  was the lowest in the city of Buenos Aires since 1991: -1,5C. The cold snap caused a record demand for energy and Argentina had to import electricity from Brazil. Many industries in Argentina were shut down due to gas shortage.

It snowed in nearly all the provinces of Argentina, an extremely rare event. It snowed even in the western part of the province of Buenos Aires and Southern Santa Fe, in cities at sea level. The most famous beach of Argentina, Mar del Plata, was whitened by the snow in the morning of July 15<sup>th</sup>, a scene only seen in recent memory in 1991, 2004 and 2007.





The snow was heavy even in Northern Argentina. In Santiago Del Estero, according to media reports, some areas experience snow for the first time in living memory. In the province of Tucuman, some town saw snow for the first time since 1921 (Gaceta de Tucuman newspaper).



In Uruguay, there were widespread reports of sleet and even snow mixed with rain in towns in the Southern and Eastern part of the country, even in the capital Montevideo. At leas two deaths have been blamed in Uruguay on the low temperatures. Hospitals were packed with patients with respiratory illness.

In Paraguay, at least nine people died due to the cold weather in only 3 days. Cattle were very affected and one thousand animals died of hypothermia. In Bolivia, dozes of people died in consequence of the very low temperatures. In some areas of the nation the cold period was described as the worst in 15 years. It even snowed in the Chaco of Bolivia, one of warmest areas of South America, where the local population never saw snow before. Classes were suspended in Bolivia for three days to prevent more cold related deaths (El Nacional newspaper from Bolivia).



Southern Brazil was also very affected by the cold air eruption from the Southern Pole. Last week the temperature dropped to -7,8C in the city of Urupema, Santa Catarina. In Rio Grande do Sul, in the hills of the state, temperature felt to -4,9C in the city of Cambara. In the state of Paraná, the low was -6C. Only the nights were freezing, but the afternoons were very cold. In some days, temperature failed to reach 5C in many towns, the first time in a decade. Flurries observed in towns of Rio Grande do Sul, Santa Catarina and Paraná and sleet was also reported in Western Santa Catarina.

The most striking scenes came from the top of Morro da Igreja, a 1800 meters elevation in the state of Santa Catarina. The area recorded snow and freezing rain. As anyone can imagine, freezing rain is extremely rare in Southern Brazil. The event was witnessed and photographed by weather observers from MetSul Marcelo Albieri and Caio Souza.



On July 14th, in the afternoon hours, temperatures in the hills of Rio Grande do Sul state in Southern Brazil were lower than in Marambio, the main polar base of Argentina in Antarctica. In Central Brazil, in the tropics, the long streak of cold days was considered extremely rare. It was so cold that thousand of animals died in this region of Brazil known for its cattle, just South of the Amazon basin.





Mortes de bovinos devem passar de 2 mil

Maybe the most notable fact took place in North South America. The cold reached Amazon and temperatures felt to as low as 7°C in towns in the Amazon Forest in the states of Acre and Rondonia. Temperature even felt in Roraima, where the state capital Boa Vista record 20C (normal lows are 25C) and the wind were blowing from the South. Boa Vista is located at 2° North of latitude, so <u>the influence of the Antarctic cold blast crossed the Equator</u> <u>line and reached towns in the Northern Hemisphere</u>. It would be the same of a cold snap from the Arctic crossing the entire North America continent, the Caribbean and reaching North Brazil in cities at 2° South of latitude as Santarem, a bizarre situation.

Surface temperature departure from normal for July 17, 2010 (degrees C).

