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Progress in American monsoon research: Extremes in the Americas-Highlights of the VAMOS/CLIVAR EXTREMES Working Group activities

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The overall focus of the extremes working group of VAMOS/CLIVAR is the improvement of our understanding of the mechanisms and predictability of warm season extremes over the Americas. The main activities have been to develop an atlas of warm-season extremes over the Americas, evaluate the existing and planned simulations and perform new integrations to address mechanisms and predictability of extremes. The ATLAS published at HTTP://gmao.gsfc.nasa.gov/research/subseasonal/atlas/Extremes.html, displays numerous maps with mean fields and indices of precipitation, generalized extreme value and return values, using gridded observations and MERRA and CFSR reanalyses, from 1979 to 2009. This atlas can be used as a source of analysis for researchers and contribute to further studies. Studies being developed in collaboration with CLARIS- LPB WP6-Processes and evolution of Extremes on La Plata Basin are also presented as well as other ongoing studies on precipitation variability and extremes in Amazonia and in southeastern South America comparing model results with observations.