Geophysical Research Abstracts
Vol. 18, EGU2016-1141, 2016
EGU General Assembly 2016

On the low frequency modulation of the oceanic teleconnections with Sahelian rainfall.

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Regarding the observational period mostly restricted to the 20th century and recent decades, the variability of Sahelian rainfall has been shown to be strongly influenced by the leading tropical and extratropical modes of sea surface temperature variability. In addition, the links between different oceanic regions and the variability of West African Monsoon have been shown to be non-stationary on time, presenting changes in the co-variability patterns depending on the considered sequence of decades. These considerations have been the starting point of many works focused either on the low frequency or the interannual varibility of Sahelian rainfall. When referring to the association between both time scales, the low frequency modulation of the interannual variability has not been so deeply explored. This work has been focused on this purpose, based on an observational and statistical analysis using the S4CAST model to show potential low frequency changes that could be altering the major circulation features associated with the interannual variability of Sahelian rainfall. The results could be used to make a deeper study of the mechanisms involved by using dynamic models, as well is currently being done.