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tropical influences on the North Atlantic Multidecadal Variability

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Recent coupled ocean-atmosphere control simulations of 1000 years long or more suggest multidecadal variability in the North Atlantic Ocean. Here, we investigate the tropical influences on the North Atlantic Multidecadal Variability in a multi-model ensemble of millenium-scale simulations, involved in the FP7 THOR project. We propose first to characterize the oceanic teleconnections within the Atlantic. The effect of the Intertropical Convergence Zone migration, the low frequency variability of the monsoon systems, the gyre circulation, and the tropical stratification (through thermocline depth) and circulation will be investigated. As a second step, possible remote tropical influence will be studied. For this, the variability of the atmospheric circulation in the North Atlantic, and the links with the Equatorial Pacific region will be assessed.