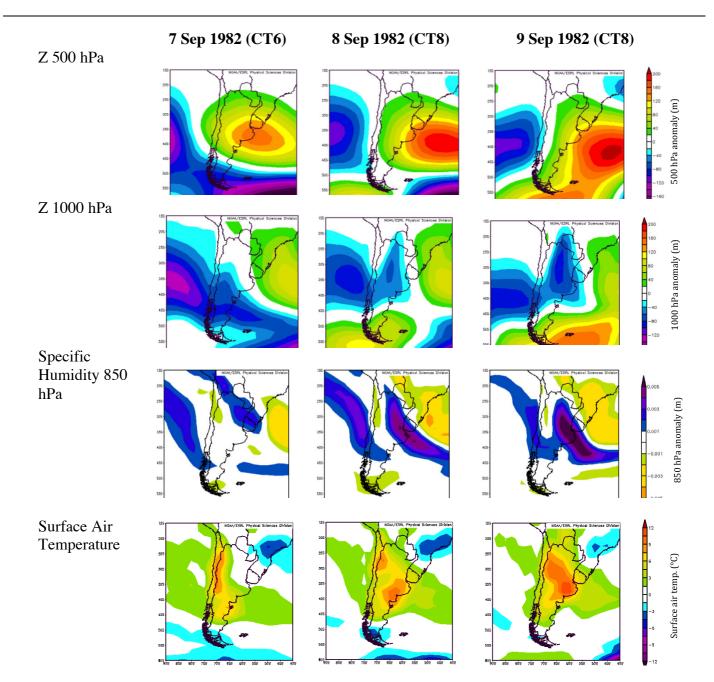
## Compound temperature and precipitation extreme events in southern South America: associated atmospheric circulation, and simulations by a multi-RCM ensemble

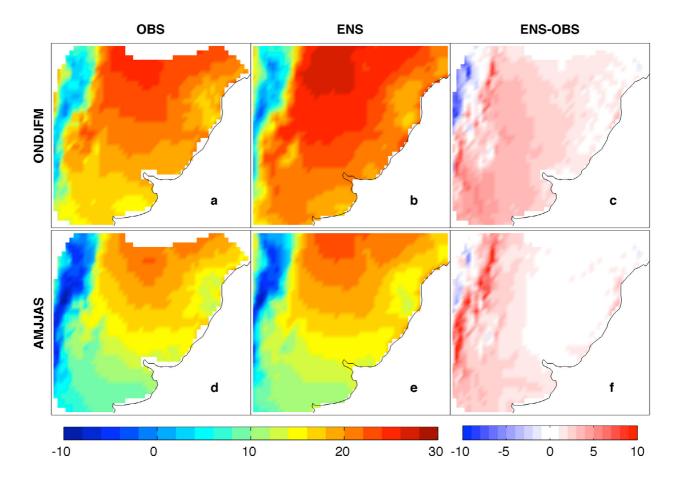
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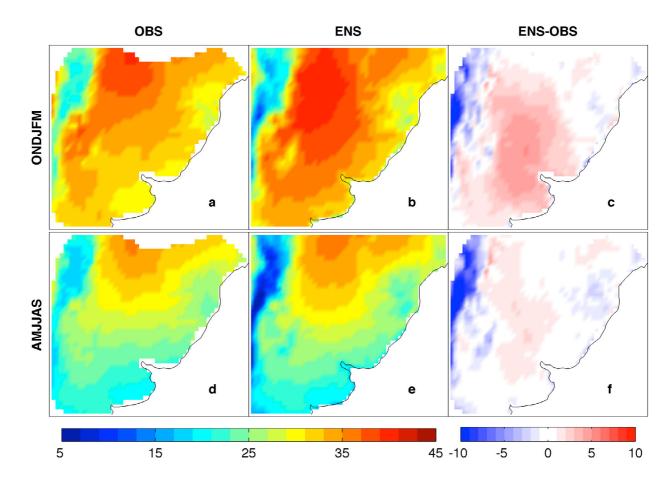
Climate Research 68: 183-199 (2015)



**Figure S1**. Evolution of circulation (anomalies of geopotential height at 500 and 1000 hPa) and associated fields (anomalies of specific humidity at 850 hPa and surface air temperature) from 7 to 9 September 1982. On 9 September 1982 more than 30% of the stations were affected by Tn90&Pr75 and Tx90&Pr75 in both the SE and SW subregions



**Figure S2.** 90<sup>th</sup> percentile of minimum temperature (Tn90, in degrees C) for (*left*) the observational gridded dataset and (*middle*) the ensemble of RCMs for the (*upper panels*) warm and (*lower panels*) cold seasons. (*right*) Difference between the ensemble and the observations. The analysed domain corresponds to the red square in Figure 1.



**Figure S3.** Same as Fig. S2 for Tx90.

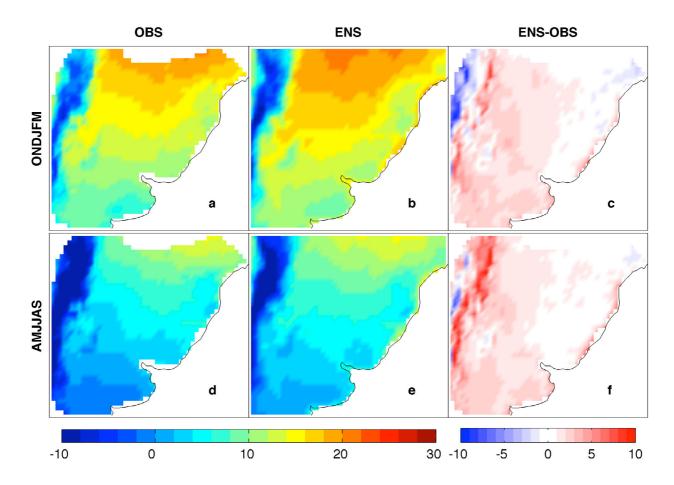
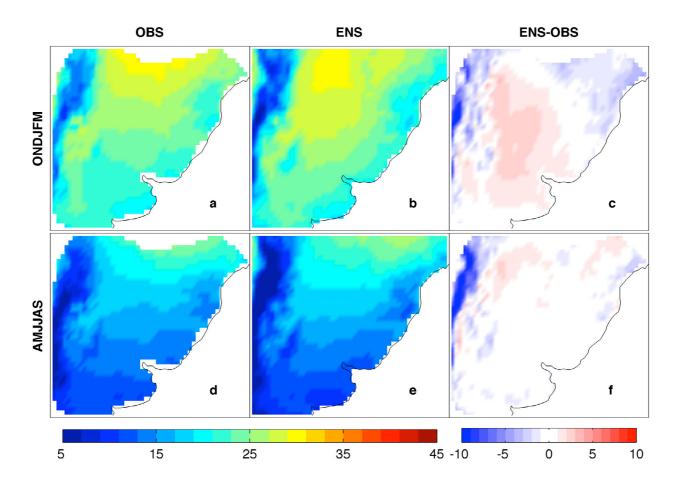
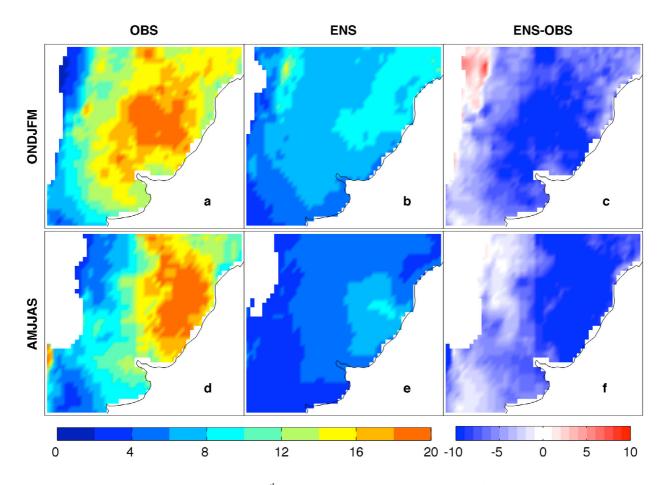


Figure S4. Same as Fig. S2 for Tn10.



**Figure S5.** Same as Fig. S2 for Tx10.



**Figure S6.** Same as Fig. S2 for the 75<sup>th</sup> percentile of precipitation (Pr75, in mm/day).