INTRODUCTION
Near-surface winds near coastal areas affect the population living nearby as also the energetic sector, such as oil and wind power industries.

The project Western South Atlantic Climate Experiment [1] provided sets of regionalized climate projections with spatial and temporal resolutions compatible with projects of coastal and offshore structures, which have been used to guide adaptation and prevention for existing installations in three Brazilian sedimentary basins: Santos, Espírito Santo and Campos.

Here, we show projections of mean winds and their extremes for the middle of the century.

RESULTS

MEAN WIND SPEED
Slight decrease (up to 0.3 m/s) over the ocean
Positive and negative signals diverge according to the season and region; for instance, all simulations show an increase/decrease of the mean wind speed during spring/summer over the southeastern Brazilian basins

EXTREME WIND SPEED
RegCM and WRF forced by HadGEM2 show opposite signals southern 25°S
Future speeds vary up to 0.5 m/s near the coast and at mid-latitudes

NON-ADJUSTED

RegCM: smooth decrease in the wind speed signal over the southeastern Brazilian basins
WRF: enhances the signals, especially near the coast and at mid-latitudes

ADJUSTED

RegCM: slight decrease in the wind speed signal over the southeastern Brazilian basins
WRF: enhances the signals, especially near the coast and at mid-latitudes

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REFERENCES

CONCLUSIONS
In general, a slight decrease in the wind speed is projected for the future over the southwestern South Atlantic.
The adjustment of extreme winds acted differently depending on the region and model. Over the southeastern Brazilian basins the signal of RegCM was smoothed while for WRF it was enhanced.