**RAPID Project: The Role of Air-Sea Fluxes in Causing Changes to the North Atlantic Thermohaline Circulation.**
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## FORTE Model data

The data is from a series of experiments initiated after 160 years of a pre-existing control run of the FORTE coupled model (Sinha and Smith, 2002).
The data files represent 7 experiments and a control run, which all start in the December of year 160.
The experiments had different magnitudes of oceanic cheat loss prescribed over the Nordic Seas (67ºN-79ºN, 19ºW-9ºE) for the first 4 months (DJFM) of the integration. More details are found in Grist et al. (2008).

The prescribed heat loss values in the 7 runs are 100, 300, 400, 475, 550, 625 and 700 $Wm^{-2}$. The files from these runs start with *ps100wm2_001*, *ps300wm2_001*, *ps400wm2_001*, *ps475wm2_001*, *ps550wm2_001*, *ps625wm2_001* and *ps700wm2_001* respectively.

The files of the control runs start with *contr_10yr001.*

There are twelve months of data (from December to November) in each file. The first year of the experiments have names like *ps100wm2_001.001.atm.nc*, *ps300wm2_001.001.atm.nc*, *ps400wm2_001.001.atm.nc, etc*.

Where *atm* delineates atmospheric fields (*oc* is for the oceanic fields).

The experiments where designed to run for 10 years. Not all of the experiments completed 10 years. Details are the completed years are below.

| **Type of Run** | **Start of filenames** | **Length of run** |
|---|---|---|
| Control. | contr_10yr001. | 10 years |
| 100 $Wm^{-2}$ heat flux | ps100wm2_001. | 10 years |
| 300 $Wm^{-2}$ heat flux | ps300wm2_001. | 9 years 7 months |
| 400 $Wm^{-2}$ heat flux | ps400wm2_001. | 10 years |
| 475 $Wm^{-2}$ heat flux | ps470wm2_001. | 5 years |
| 550 $Wm^{-2}$ heat flux | ps550wm2_001. | 10 years |
| 625 $Wm^{-2}$ heat flux | ps625wm2_001. | 3 years |
| 700 $Wm^{-2}$ heat flux | ps700wm2_001. | 10 years |

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**References:**
Grist J. P., S. A. Josey, B. Sinha and A. T. Blaker, 2008: Response of the Denmark Strait Overflow to Nordic Seas Heat Loss. *J. Geophys. Res.,* (accepted subject to minor revisions).

Sinha, B. and R. Smith, 2002: Development of a fast coupled general circulation model (FORTE) for climate studies, implemented using the OASIS coupler, *National Oceanography Centre, Southampton, Tech. Rep. 81*, 67pp & figures.