Title of the article

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Abstract.

The abstract goes here.

1. Introduction

As horizontal resolution in general circulation models (GCMs) increases, the representation of tropical cyclones has improved greatly [*Oouchi et al.*, 2006; *Bengtsson et al.*, 2007; *Zhao et al.*, 2009; *Murakami et al.*, 2012; *Manganello et al.*, 2012; *Satoh et al.*, 2012; *Strachan et al.*, 2013; *Zarzycki and Jablonowski*, 2014; *Wehner et al.*, 2014].

2. Model description

2.1. Community Atmosphere Model

The Community Atmosphere Model (CAM)

In this paper, all simulations utilize the Spectral Element (SE) dynamical core option within CAM.

2.2. Coupling within CESM

(Describe coupling procedure in CESM; draw schematic; confirm with T. Craig or Mariana).

Prescribed SSTs and ice are passed to the model on a 1°x1° grid and internally interpolated to the ocean and ice grids.

3. Results

3.1. Deterministic simulations

To assess the differences in simulated TCs in a controlled manner, we utilize two nearly identical CAM setups to forecast observed storms. These simulations utilize the new, variable-resolution capability of CAM-SE [*Zarzycki et al.*, 2014].

grid with 1/8° (∼14km) grid spacing over the Atlantic Ocean and are initialized with atmospheric analysis from the.

Observed SSTs are taken from NOAAOI and provided as input to the model on a 1°x1° grid.

Further details about model setup and initialization are described in **?**.

The only differences between the two model setups is the grid used by the data ocean and ice models. The first set of simulations uses a displace tripole grid with an equivalent resolution of 1° (gx1v6) while the second uses an ocean grid identical to the atmospheric grid with an equivalent resolution of 1/8°.

COLIN FORECAST STUFF AT 14 KM

3.2. Climate simulations

JULIO/KEVIN CLIMATE SIMS

4. Discussion

Discussion goes here.

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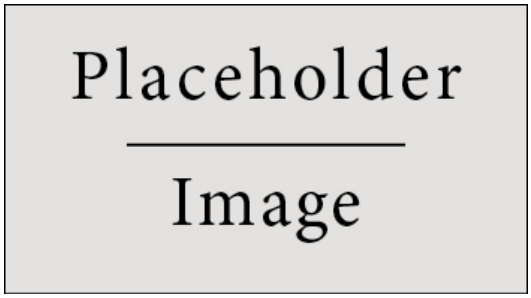

Figure 1. Figure caption

Table 1. Table caption

Treatments	**Response 1**	**Response 2**
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296